

SCOPING AND ISSUE IDENTIFICATION

At the beginning of this project the BLM and Forest Service held a series of public meetings in local communities to gather public comments regarding oil and gas development in the EIS area. Those comments expressed concern for wildlife, threatened and/or endangered species, impacts to visual resources, local economic development, tourism, recreation, impacts on local landowners, potential impacts of H₂S on human health and safety and effects to the adjacent Bob Marshall Wilderness Area.

The public scoping meetings identified additional public concerns regarding the stability of the oil and gas industry, the need for oil and gas resources, public attitudes, impacts to water resources and the cumulative effects of development.

The comments received during the scoping process were used in the development of evaluation criteria for the environmental analysis.

CONSULTATION AND COORDINATION IN PREPARATION OF THE DOCUMENT

The U.S. Fish and Wildlife Service was asked to provide any listed and proposed threatened and/or endangered species that may be present in the EIS area. Formal consultation through the USFWS's Endangered Species Office began when BLM submitted a Biological Assessment describing the impacts of the alternatives discussed in this EIS. Section 7(d) of the Endangered Species Act requires that during the consultation process no irreversible or irretrievable commitment of resources will occur.

The Montana Department of Fish, Wildlife and Parks was contacted regarding bighorn sheep, Rocky Mountain goat, elk and deer populations and herd composition.

A scoping meeting for state government agencies that might be affected by, or have an interest in this project, was held in Helena on October 3, 1985. The following agencies were present:

Bureau of Land Management
Forest Service (Lewis & Clark)
Montana Department of State Lands

Montana Department of Fish, Wildlife and Parks
Montana State Historic Preservation Office
Montana Department of Agriculture
Montana Governor's Office
Montana Department of Commerce

The following is a list of scoping meetings held regarding this project:

Sept. 30, 1985	Lewistown District Advisory Council - Circle 8 Ranch
Oct. 2, 1985	Montana Wilderness Groups - Helena
Oct. 3, 1985	State Government - Helena Western Environmental Trade Assoc.



Oct. 15, 1985 Local Landowners - Choteau
 Oct. 16, 1985 Public Workshop - Choteau
 Oct. 17, 1985 Local Interest Groups - Great Falls
 Oct. 23, 1985 Public Workshop - Great Falls
 Oct. 24, 1985 Montana Petroleum Association - Helena
 Oct. 24, 1985 Special Interest Groups - Missoula

Assistant Secretary of the Air Force
 Pentagon, Secretary of the Army
 Bureau of Indian Affairs
 Bureau of Reclamation, Division of Environmental
 Affairs
 Department of Energy, Western Area Power
 Administration
 Department of Transportation
 Federal Aviation Administration
 Environmental Protection Agency
 Federal Highway Administration
 Federal Housing Administration
 U.S. Geological Survey, Environmental Affairs
 Program
 Minerals Management Service
 National Park Service
 Soil Conservation Service

DISTRIBUTION LIST

BLM requested comments from interest groups and individuals; from federal, state and local agencies; and from Native Americans. The following is a partial list of organizations and agencies that received this document.

County Commissioners, Boards of Planning and Chambers of Commerce

Cascade County Commissioners
 Montana Chamber of Commerce
 Teton County Commissioners

State of Montana

Department of Health and Environmental Sciences,
 Water Quality Bureau
 Representative John Cobb
 Montana Environment Quality Council
 Montana Department of Fish, Wildlife, and Parks
 Department of Community Affairs
 Department of Health and Environmental Sciences,
 Air Quality Bureau
 Department of Natural Resources and Conservation
 Department of State Lands
 Stan Stephens, Governor of Montana
 Intergovernmental Review Clearinghouse

Congressional

Honorable Max Baucus
 Honorable Conrad Burns
 Honorable Ron Marlenee
 Honorable Pat Williams

Federal Agencies

Advisory Council on Historic Preservation
 Army Corps of Engineers
 Tribal Business Council, Blackfeet Indian Nation
 U.S. Fish and Wildlife Service
 U.S. Army Corps of Engineers
 U.S. Geological Survey
 Forest Service, Lewis & Clark National Forest
 Library and Information Service, Department of
 Interior
 Bureau of Mines
 Office of Environmental Compliance
 United States Energy

Special Interest Groups

American Fisheries Society
 American Horse Protection Association
 American Mining Congress Journal
 Billings Rod and Gun Club
 Bob Marshall Ecosystem
 Missoula Backcountry Horsemen
 Eastern Montana College
 Defenders of Wildlife
 Environmental Impact Services
 Fishing and Floating Outfitters Association of
 Montana
 Great Bear Foundation
 Humane Society of the U.S.
 Independent Petroleum Association of Mountain States
 Inland Forest Resource Council
 Izaak Walton League of America
 American Outdoors Project
 Laurel Rod and Gun Club
 Glacier Two Medicine Alliance
 Lewistown Rod and Gun Club
 Center for Disease Control
 Sierra Club Regional Representative
 Minerals Exploration Coalition
 Montana Association of Grazing Districts
 Montana Cattlemans Association
 Montana Stockgrowers Association
 Montana Wilderness Association
 Montana Wildlife Federation
 Montana Outfitters Association
 Montana Audubon Council
 Montana Automobile Association
 Montana Coal Council
 Montana Council of Cooperatives
 Montana Environmental Information Center
 Environmental Quality Council
 Montana Farm Bureau

Montana Farmers Union
 Montana Geological Society
 Montana Historical Society
 Montana Land and Minerals Owners Association
 Montana Mining Association
 Montana Petroleum Association
 Montana Public Lands Council
 State Grazing District Association
 Montana State University
 Montana Stockgrowers Association
 Montana Wilderness Association
 Montana Woolgrowers
 National Audubon Society
 Yellowstone Valley Audubon Society
 National Wildlife Federation
 Natural Resources Defense Council
 NCD Ecosystem
 Nevada Outdoor Recreational Association, Inc.
 Northern Plains Resource Council
 Overthrust Foundation
 Pennsylvania Coop Wildlife Research Unit
 Public Lands Council
 Wilderness Institute
 Montana Wildlands Coalition
 Sierra Club
 Colorado State University
 Trout Unlimited
 Department of Anthropology, University of Montana
 Western Environmental Trade Association
 The Wilderness Society
 Wilderness Institute
 Wildlife Management Institute
 The Wildlife Society

Business and Organizations

Airo Drilling Corporation
 Amax Exploration, Inc.
 Amec, Inc.
 American Colloid Company
 American Petrofina Company of Texas
 Amoco Production Company
 Anaconda Minerals Company
 Andover Resources
 Arco Exploration Company
 Atlantic Richfield Company
 J.R. Bacon Drilling, Inc.
 Balcron Oil Company
 Black Bow Exploration
 Blackleaf Petroleum Company
 Bond Operating Company
 Bronco Exploration
 Burton/Hawks, Inc.
 Cascade Courier
 Celsius Energy Corporation
 Choteau Acantha

Cities Service Oil and Gas Corporation
 City Oil Company
 CNG Producing
 Coastal Oil and Gas Corporation
 Coastal States Energy Company
 Comanche Drilling Company
 Croft Petroleum Company
 Crown Central Petroleum Corporation
 Davis Oil
 Depco, Inc.
 Diamond Shamrock Exploration
 Eastern American Energy Corporation
 Elenburg Exploration
 Energetics, Inc.
 Energy Reserves Group, Inc.
 Energy Fuel NEEC, Inc.
 Energy Reserves Group, Inc.
 EPS Resources Corporation
 Exxon Corporation
 Fairfield Times
 Frontier Exploration Company
 Fuel Resources Development Company
 Fulton Producing Company
 Getty Oil Company
 Glacier Reporter
 Great Falls Tribune
 Great Northern Drilling Company, Inc.
 Gulf Oil Exploration and Production Company
 Halliburton Company
 Halliburton Services
 Hardrock Oil Company
 Ray Harrison Drilling
 Havre News
 Hickel and Tooke Drilling Company
 Hicks and Sons, Inc.
 High Country News
 Highline Drilling Service
 Homestake Oil and Gas
 Husky Oil
 Investestate
 J. M. Resources, Inc.
 Juniper Petroleum Company
 Lewistown News Argus
 Lightning Productions, Inc.
 Luff Exploration Company
 Macquest Resources, Inc.
 Marathon Oil
 Montana/North Dakota Utility
 Exxon Coal Resources USA, Inc.
 Meridian Oil, Inc.
 Minden Oil and Gas, Inc.
 Mobil Oil
 Mobil Oil Canada LTD
 Montana Magazine
 Montana Pacific Oil and Gas Company

Montana Power Company
 Montana Oil Journal
 Montana Pacific Oil & Gas Company
 Mountain Fuel
 Mountain States Petroleum Corporation
 Burlington Northern Railroad
 Northern Pacific Oil and Gas
 Petro-Lewis Corporation
 Phillips Petroleum
 Red River Oil and Gas, Inc.
 S & W Petroleum Consultants, Inc.
 S & J Operating
 Schlumberger Well Service
 Shadco
 Shell Oil Company
 Sohio Petroleum Company
 Superior Oil
 Union Oil Company
 Western Energy Company
 Western Natural Gas Company
 Western Reserves, Inc.
 Wildcat Oilfield Construction, Inc.
 Williams Exploration Company

This document is also available at county libraries. In addition, approximately 270 copies were mailed to individuals and branch offices of the agencies and businesses listed above.

PREPARERS

Interdisciplinary Team

This EIS was prepared by an interagency interdisciplinary team. The team members are listed below.

ANN BISHOP, Visual Information Specialist. Art Education Major, Colorado State University. Employed by Bureau of Land Management 1975 - present. Primary EIS responsibility: graphics and printing.

BILL BISHOP, Public Information Officer (retired). B.A. from the University of New Mexico. First team leader and responsible for the original coordination between the various agencies who helped prepare this document.

KERRY CONSTAN, Montana Department of Fish, Wildlife and Parks Oil and Gas Coordinator. B.S. Electrical Engineering, University of New Mexico, 1956; B.A. Geology, University of New Mexico, 1960; M.S. Fish and Wildlife Management, Montana State University, 1967. Employed by Montana Department of Fish, Wildlife and Parks, 1967 - present. Primary EIS responsibility: Montana Department of Fish, Wildlife and Parks liaison.

DALE DAVIDSON, Archaeologist. B.S. English, University of San Diego, 1966; M.A. Anthropology, Northern Arizona University, 1978. Employed by U.S. Forest Service 1 year, Bureau of Land Management 1980 - present. Primary EIS responsibility: cultural resources.

TAD DAY, Wildlife Biologist. B.S. Fish and Wildlife Management, Montana State University, 1968; M.S. Fish and Wildlife Management, Montana State University, 1972. Employed by Ecological Consulting Services 1 year, Montana Department of Fish, Wildlife and Parks 1 year, Bureau of Land Management 1975 - present. Primary EIS responsibility: wildlife resources and threatened and/or endangered species assessment.

SETH DIAMOND, Acting Resource Assistant/Wildlife Biologist. B.A. Anthropology, Duke University, 1983; M.S. Wildlife Biology, Virginia Tech., 1988. Self-employed as owner/operator nursery and landscaping business. Employed by Forest Service 1988 to present. Primary EIS responsibility: roadless area resources.

CRAIG FLENTIE, *Writer/Editor*. B.S. Technical Journalism/Mass Communication, Kansas State University, 1972. Employed by Bureau of Land Management 1980 - present. Primary EIS responsibility: Writer/Editor and Technical Coordinator.

JOE FRAZIER, Hydrologist. B.S. Business, University of Kansas, 1968; M.S. Aquatic Biology, Emporia State, 1975; M.S. Hydrology, University of Wyoming, 1980. Employed by Bureau of Land Management 1980 - present. Primary EIS responsibility: water resources review.

CHUCK FREY, Geologist. B.A. Geology, University of Montana, 1974. Employed as Geological Consultant 1 year; United States Geological Survey 2 years, Bureau of Land Management 3 years, Forest Service 1980 - present. Primary EIS responsibility: geology and Forest Service liaison.

DON GODTEL, Wildlife Biologist. B.S. Wildlife Management, Colorado State University, 1968. Employed by U.S. Forest Service 1973-1976, United States Department of Agriculture - Agricultural Research Service 1 year, Forest Service 1977 - present. Primary EIS responsibility: wildlife resources review, cumulative effects model, and sensitive species effects analysis.

VALDON HANCOCK, Hydrologist. A.S. Forestry, Idaho State University 1963; B.S. Watershed Management, Utah State University, 1965; M.S. Range Watershed Management, Utah State University, 1969. Employed by Forest Service 1967 - present. Primary EIS responsibility: water resources.

CHRIS JAUERT, Range Conservationist. B.S. Range Management, Humboldt State College, 1972. Employed by U.S. Forest Service 6 years, Bureau of Land Management 1974 - present. Primary EIS responsibility: range resources and livestock use.

PAUL KRUGER, Environmental Scientist. B.S. Atmospheric Sciences, University of Washington, 1978. Employed by United States Geological Survey 5 years, Minerals Management Service 1 year, Bureau of Land Management 1984 - 1989. Primary EIS responsibility: air quality and noise.

CHUCK LAAKSO, Petroleum Engineer. B.S. Geological Engineering, Michigan Technological University, 1970. Employed by United States Geological Survey 4 years, Minerals Management Service 1 year, Bureau of Land Management 1983 - present. Primary EIS responsibility: oil and gas resources.

RHODA O. LEWIS, Archaeologist. B.S. Secondary Education, Chadron State College; M.A. Anthropology, University of Wyoming. Employed by Bureau of Land Management 1988 - 1990. Primary EIS responsibility: cultural resources.

TIM LOVE, Forester. B.A. Geography/Forestry, University of Montana, 1979. Employed by Forest Service 1975 - present. Primary EIS responsibility: visual and recreation resources.

JERRY MAJERUS, Economist. B.S. Forestry, University of Montana, 1980; M.S. Forestry, University of Montana, 1982. Employed by Bureau of Land Management 1983 - present. Primary EIS responsibility: socioeconomics.

BOJE NIELSEN, Landscape Architect. M.S. Landscape Architecture, University of Massachusetts, 1978. Employed by Forest Service 1979 - present. Primary EIS responsibility: visual resource management.

CHUCK OTTO, Land Use Specialist. B.S. Forestry, University of Montana, 1976. Employed by Bureau of Land Management 1975 - present. Primary EIS responsibility: I. D. Team Leader, alternative development, visual resources.

WAYNE PHILLIPS, Ecologist, B.S. Forestry, University of Montana, 1965. Employed by Forest Service 1965 - present. Primary EIS responsibility: vegetation and soil resources.

DALE SCHAEFFER, Civil Engineer. B.S. Construction Engineering Technology, Montana State University, 1972. Employed by Forest Service 1973 - present. Primary EIS responsibility: transportation planning.

GARY SLAGEL, Land Use Specialist. B.S. Wildlife Management, Utah State University, 1977. Employed by Bureau of Land Management 1979 - present. Primary EIS responsibility: Technical Coordinator, alternative development, I.D. Team Leader.

JANE WEBER, Public Affairs Officer. B.S. Education, University of Montana, 1975; B.S. Forestry, University of Montana, 1981. Employed by Forest Service 1977 - present. Primary EIS responsibility: public information/involvement and public scoping.

CLARK WHITEHEAD, Recreation/Wilderness Specialist. B.S. Forest Management, University of Montana, 1967. Employed by Bureau of Land Management 1969 - present. Primary EIS responsibility: visual and recreation resources review.

These people from the Lewistown District Office, the Great Falls Resource Area Office and the Montana State Office helped greatly in preparing this DEIS.

Kathy Getman	Kelly Lennick
Earl Dahlhausen	Kathy Ives
Debbie Wilson	Rick Kirkness
Connie Lubinus	Nancy Gavinsky
Sharon Gregory	Dan Lechefsky
Kathy Ruckman	Bob Allen
Barb Sereday	Ted Bailey

PUBLIC REVIEW OF THE DRAFT EIS

The draft EIS was announced in the Federal Register on April 13, 1990 (Vol. 55, No. 72, Page 1,400), and filed with the Environmental Protection Agency. In addition, media releases were sent to area radio stations and newspapers to announce the availability of the draft EIS and locations of public hearings, requesting public comment on the adequacy of the statement.

Endangered Species Act Section 7 Consultation occurred with the USFWS in the Fall of 1989 (see Appendix L). This was completed prior to the draft EIS being released to the public, so that the Biological Opinion could be included in the draft for public review.

During the 90-day public comment period (April 20 to July 20, 1990), BLM and FS conducted 5 open houses to solicit comments on the draft EIS (see following).

Draft EIS Open Houses

Location/Date	Team Members	Attendance
Great Falls 05/07/90	Gary Slagel - BLM Tad Day - BLM Peter Ditton - BLM Ann Bishop - BLM Kerry Constan - MDFWP Patty Johnston - FS Seth Diamond - FS	15
Choteau 05/08/90	Gary Slagel - BLM Tad Day - BLM Peter Ditton - BLM Ann Bishop - BLM Kerry Constan - MDFWP Patty Johnston - FS Seth Diamond - FS	
East Glacier 05/09/90	Gary Slagel - BLM Tad Day - BLM Peter Ditton - BLM Ann Bishop - BLM Kerry Constan - MDFWP Patty Johnston - FS Seth Diamond - FS	33
Missoula 05/16/90	Gary Slagel - BLM Tad Day - BLM Peter Ditton - BLM Craig Flentie - BLM Kerry Constan - MDFWP Seth Diamond - FS Tim Love - FS	31
Helena 05/17/90	Gary Slagel - BLM Tad Day - BLM Peter Ditton - BLM Craig Flentie - BLM Kerry Constan - MDFWP Seth Diamond - FS	9

Additionally, on June 19, 1990, the BLM met with several Blackfeet Native Americans knowledgeable about Indian traditional cultural practices to solicit their comments. No conflicts were identified.

The BLM also sent a letter (June 20, 1990) to the Blackfeet Tribal Council offering to brief the Council on the draft EIS. The BLM received no response.

The BLM received 122 letters addressing the draft EIS during the public comment period. All letters were assigned a reference number and reviewed. Substantive comments (those that presented new data, questions or new issues bearing directly on the effects of the Proposed Action and alternatives) were responded to; where appropriate, draft EIS sections were revised.

COMMENTS AND RESPONSES

During the draft comment analysis process, all written comments received on the draft EIS by individuals, organizations and elected officials were categorized and coded into 15 areas of concern. These broad categories (A through O) are listed below, along with the topic of each category.

A1-A25	Oil and Gas Leasing, Exploration and Development
B1-B21	Wildlife
C1-C11	Alternatives
D1-D8	Access Management and Reclamation
E1	Visual Resources
F1-F2	Health and Safety
G1	Recreation
H1-H4	Vegetation
I1	Cultural Resources
J1-J3	Socioeconomics
K1-K2	Mitigation Measures
L1	Air Quality
M1-M2	Teton Roadless Area
N1	Fisheries
O1-O9	DEIS Development Process

The following alphabetical list contains the name and comment codes of those individuals commenting on the draft EIS.

COMMENT CODE

Last Name/ First Name	Title	Affiliation
Aune, Keith B16 C6 D2	President	MT. Wildlife Society
Bruno, Lou A10 B2 B3 I1 M2	President	MT. Wilderness Assoc.
Bruno, Lou A6 A10 A13 B2 B11 M2	President	Glacier-Two Medicine Alliance

Last Name/ First Name	Title	Affiliation
Carr, Dave A1 B3 B10 D2 H1 H2 N1	Preserve Manager	Nature Conservancy Pine Butte Swamp
Decker, Bob M2	President	MT. Wildlands Coalition
France, Thomas A1 A13 A24 A25 B2 B3 B7 B11 B13 B17 B18 C3 C9 H1 H3 J1 J3 O4		National Wildlife Federation et.al.
Gutkowski, Joe M2	President	Gallatin Wildlife Association
Haskins, William A1 A6 A7 B2 B6 B7 C3 D1 E1 F1 H1 M1		The Ecology Center
Kelly, Steve B9 F1	President	Friends of the Wild Swan
Montalban, J.V. A2 A23 O1	President	Gypsy-Highview Gathering System
Pederson, Norman A1 A2 A3 A4 L1 O1		Gypsy-Highview Gathering System
Phelps, James A16 B3 D2 D4	Public Lands	MT. Audubon Council
Setter, Marion B10 B11		Wilderness Society
Sexton, Mary A1 B3 B10 D2 H1 H2 N1	Preserve Manager	Nature Conservancy Pine Butte Swamp
Waldt, Ralph C6	Naturalist	Nature Conservancy Pine Butte Swamp
Weeks, Randall A18 C4		Davis, Graham & Stubbs
Willows, S.L. A10 B3 B19 C3 C11 J1 K2 O5 O6 O7 O8 O9	Coordinator	Canyon Coalition

COMMENTERS NOT AFFILIATED WITH AN ORGANIZATION

Adams, Margaret J2	Dodge, Larry C6
Applegate, Brock D5	Douvris, George C1
Arneson, Don B2 B20 D3 D6 E1 G1	Engler, George B15 J2
Bader, Mike B3 B9 M2	Gardner, Jeffrey B2 E1 F2
Barron, Daniel C8	Gettel, Arnold C5
Bechtold, Timothy B2 E1 F1	Henderson, Dean B8
Berlind, Perry A13 B3 B11 C3 E1 M2	Henry, Mary A1 B2 B3 B10 B11 Hilde, Gracia C6
Blank, Deborah B1	Hlavaty, Melina C4
Bloom, Roseanne C6	Hockett, Glenn A1 B2 B3 B10 B11
Brekke, Joe C4 C7	Holton, George B3 B4 D2 M2
Bryan, Barbara B2 B5 J1	Hugo, Ripley A10 J2
Carlson, Albert C4	Ikeda, Beth B3 B11
Childs, Glen C6	Jones, Cedron A1 A17 A19 A20 B3 B11 C10 E1 M2
Clark, Greg B3	Jones, Francis C5
Cozzens, Sue B3	Juel, Jeff A1 A10 B2 B3 C3 J1 M2
Craig, Doug C6	Kahn, M.J. B2 B3 B10 B11
Craig, Jan C6	

Kay, Charles B2 D6 D7 D8 K1 O2	Morgan, Susan B3 B11	Schmid, John A10 M2	Von Alten, Bruce B1
Klampe, Terry C6	Nelson, Dennis C7	Schwitters, Michael E1 I1	Wallace, Stephen A1 B2 B3 B10 B11
Kloetzel, Steven A12 A14 B2 B12 B13 C9 D1 D4 F1 K1 M2	Newman, Joe C2	Sentz, Gene A8 A9 A10 B3 B21 D2 D3 D4 M2	Wehr, Forrest C2
Knight, Phillip A5 B1 B2 B3 B4 B5 C3 E1 J1	Oliver, Tracy C6	Shapley, Mark B3 C6	Wehr, Sue C6
Langenbach, Harold C6	Perry, Linda B2 B3 B10 B11	Shaw, Keith A1 A13 B3 B9 B15 D3 D4 E1 J2	Wilmot, Jason B3
Lauckner, Boni C6	Platt, Kenneth A1 B2 B3 B10 B11	Shaw, Leslie C6	Wilson, David B3
Lennox, Jamie B8	Porter, Robert C6	Sinay, Ken B3 B11 D2 M2	Wilson, Harry O3
Lilburn, John A1 A10 B2 B3 B11 M2	Posey, Mitch C6	Snow, Donald C2	
Lintner, Laurel A10 B21 M2	Powell, Brian A1	Spinler, Ed B3	
Lintner, William B3	Pyle, Phil B3 E1	Stansberry, Rachel A10 B3 B9	
Martin, Gerald C6	Prach, Carlmae C2	Stoll-Anderson, Linda B14 C6 M2	
Martineau, Linden B1 C1 C2	Prach, Edwin C2	Stone, Tracy A1 B2 E1	
McCauley, Carley C6	Rands, Madeline B10 B11 E1 H4	Swanson, John C6	
McGill, John A1 A22 B2 B3 B10 B11 K1 M2	Reimers, Diane B2 B5 E1	Tipler, Becky B2 B3 B5 B8	
Metcalf, Donna B3	Richards, B. C6	Thweatt, Suzanne M2	
Moore, Stephen A15 C7	Roberts, Richard C6	Toubman, Sara A1 A17 A21 B3 C3	
Morgan, A. A11 A12 B2 B3 C9 D2 I1 K1 M2	Rose, Sam C5	Turk, Lawrence C3 C6	
	Sanz, Mark A1 B10 B11		

PUBLIC COMMENTS

Following are the comments received from individuals and organizations during the public comment period on the draft EIS. Immediately following are the agencies' responses to these comments.

Oil and Gas Leasing, Exploration and Development

A1

The comments suggest that production facilities (separation and dehydration units) at each wellsite will need daily monitoring, specifically to check for leaks and that remote monitoring is a relatively new and unproven technology. The comment also asks what mitigation will be implemented should remote monitoring fail?

A2

The comments suggest that the central production facility cannot contain the vapors within the plant, will create high noise and pollution levels, will be a fire hazard and will create severe impacts to wildlife.

A3

The respondent states that in the past six months there have been three leaks in an existing pipeline.

A4

The respondent requests clarification of the reinjection (water, CO₂ and H₂S) process.

A5

The respondent objects to the construction of 24 miles of road and 37 miles of pipeline within the Blindhorse Outstanding Natural Area.

A6

The comment suggests that the draft EIS fails to address the effects of seismic testing associated with gas development.

A7

The respondent states that the language dealing with the length of time that will be allowed to drill a well is vague and inconclusive and asks what criteria will be used to determine the timing of the drilling?

A8

The respondent states that the final EIS should specify that all necessary power lines leading to any site be buried underground.

A9

The respondent asks why the draft EIS does not discuss slant-drilling.

A10

The comments suggest that the validity of the original leases should be reexamined.

A11

The comment suggests the possibility for commercial production from the exploratory wells is too low to merit exploration; the possibilities for production do not justify the possible environmental loss. The respondent also asks if the first exploratory well drilled is a dry hole, will the other five exploratory wells be drilled?

A12

The respondents state that under Alternative 4, 12 of the 25 leases would be developed. They ask if the remaining 13 leases will be developed at a later date, with or without a public comment period?

A13

The respondents state the draft EIS is faulty because the USFWS Biological Opinion did not address the impacts of the exploratory wells, analyzing a worst-case-scenario and displaying the total cumulative impacts.

A14

The respondent requests clarification of Table 4.24 (on page 121) and the text on page 120, concerning the estimated high production levels of S-4.

A15

The respondent urges the time frames for drilling the exploration wells be advanced to the early 1990s.

A16

The comment suggests that the central processing facility should be located at least 2-miles northeast of its proposed location in Alternatives 1,3 and 4.

A17

The respondents ask why the 1-13 and 1-19 wells are brought into production under each alternative, even though they are located in an area defined by the Rocky Mountain Front Wildlife Guidelines as not available for exploration and production.

A18

The respondent states a structure contour map would aid in understanding the rationale for the proposed locations for the step-out and exploration wells.

A19

The respondent asks if closed system processing plants located at each wellsite would be feasible?

A20

The respondent asks if all of the 37.4 to 2.8 BCF reductions in production for Alternative 2 versus Alternative 4 are due to omitting wells S-6 and S-7, or is some the result of different technology?

A21

The respondent states that the draft EIS Table 2.1 indicates a water supply would be required for drilling and development, and asks where the water would come from and how much would be needed.

A22

The respondent states the draft EIS does not explore the possibility of remote monitoring to minimize human activity.

A23

The respondent states that from the seismic information available to industry, the agencies estimate of a dozen more producing well locations is highly optimistic.

A24

The respondent states that areas which will be unavailable for leasing in the future are not identified in the draft EIS, nor are areas that will be protected through NSO stipulations.

A25

The respondent requests correction of figure 3.14 on page 62 of the draft EIS.

Wildlife

B1

The respondents question the validity of the Cumulative Effects Model and its use in assessing impacts to the grizzly bear and its habitat.

B2

The respondents believe there was an invalid dismissal of effects upon the endangered gray wolf and gray wolf recovery.

B3

The respondents believe the Rocky Mountain Front Wildlife Guidelines were ignored/violated.

B4

The comments indicate the draft EIS lacks the proper monitoring requirements necessary to determine impacts to wildlife.

B5

The comments indicate the draft EIS did not consider the potential effects of a hydrogen sulfide blowout on wildlife.

B6

The respondent indicates wolves are now known to inhabit the Dupuyer area and suggests the U.S. Fish and Wildlife Service Biological Opinion be revised to reflect this new information.

B7

The respondents request clarification of the levels of habitat effectiveness discussed in the USFWS Biological Opinion on page 245 of the draft EIS.

B8

The respondents indicate there should be no drilling in the Blackleaf Canyon because the area is critical wolf habitat and is important for wolverines, mountain goats, elk and grizzly bear.

B9

The respondents indicate further development should not be considered until there is an eco-system wide (Glacier Park, Bob Marshall Complex and surrounding lands) cumulative effects analysis.

B10

These comments suggest the draft EIS does not consider the impacts of full field development on the grizzly bear.

B11

These comments suggest the draft EIS fails to provide specific information about the cumulative impacts of oil and gas development on elk, mule deer, mountain goat and bighorn sheep populations.

B12

The respondent asks if the agencies will re-inventory grizzly bear den sites between development and the year 2010?

B13

The respondent asks "why, in the event of affecting/impacting a T&E species, would the USFWS be consulted with on an informal basis?"

B14

The respondent asks if the Rocky Mountain Front Wildlife Guidelines will be adhered to?

B15

The respondents believe the draft EIS fails to consider the need for increased law enforcement to secure wildlife populations and habitat security.

B16

The comment suggests that a loss of habitat effectiveness for a critical indicator species (grizzly bear) equates to a loss of habitat effectiveness for other wildlife.

B17

This comment requests a correction of Figure 3.4 on page 49 of the draft EIS.

B18

The comment suggests the percentage reduction of habitat effectiveness and the seasonal habitat value in the zone of influence given in the text of Appendix L (page 224) are not consistent with those in Tables L-2 through L-4.

B19

The comment indicates the summary of effects on wildlife is deficient, lacks a clear format and provides no basis for comparison.

B20

This comment suggests new/improved roads (increased access) would result in an increased risk of illegal mortality to wildlife.

B21

These respondents believe no activities should be allowed in the Blindhorse ONA because of its importance as winter and transitional wildlife range.

Alternatives

C1

These comments suggest the Blackleaf area should be preserved for future generations and suggested conservation and wind farm alternatives as alternatives to hydrocarbon exploration.

C2

These respondents indicated a preference for the No Action Alternative, but offered no supporting information.

C3

These comments indicate the draft EIS does not contain a true No Action Alternative.

C4

These comments indicate a preference for drilling and citing oil and gas exploration/development as examples of multiple use.

C5

These respondents indicated a preference for drilling, but offered no supporting comments.

C6

These respondents are opposed to oil and gas development in the Blackleaf Canyon area, believing the scenic, recreational and wildlife values outweigh the need for energy production.

C7

These respondents indicated a preference for the Preferred Alternative, citing a need to stimulate our state and national economic base, using the resources available.

C8

The respondent states an alternative the agencies have ignored is to remove all existing wells on the Rocky Mountain Front.

C9

The respondents indicate more of a compromise is needed between Alternatives 3 and 4, and that the preferred alternative does not balance resource production with resource protection.

C10

The respondent would like the agencies to consider an alternative allowing sequential development; to explore and develop the eastern structure first with the stipulation the operator fund wildlife monitoring studies. After 5 years, barring negative impacts to wildlife, the western structure would be developed.

C11

The respondent states the agencies have violated NEPA by failing to give meaningful consideration to the no-leasing alternative in the first place.

Access Management and Reclamation

D1

The respondent indicates the draft EIS fails to indicate the specific means and locations of road closures and that the road closures may be inadequate in mitigating the effects of large scale road development.

D2

These comments indicate the draft EIS should specify all newly constructed/reconstructed roads accessing non-producing wellsites should be closed to the public and restored to their original condition and that road construction should be held to a minimum.

D3

These comments request correction of Figure 2.9, which shows an access road going into Blackleaf Canyon, west of the existing 1-13 wellsite.

D4

These comments request correction of Figures 2.11 and 2.13, which contain discrepancies of wellsite locations and access routes.

D5

The respondent asks that no new roads or pipelines be built which would traverse wildlife habitat.

D6

These comments state adequate consideration was not given to the extent and use of year-long access roads by gas field workers and the general public and how that use would impact wildlife.

D7

The respondent is questioning why the draft EIS shows the 1-13 pipeline as proposed, yet it was constructed in 1988.

D8

The respondent states the draft EIS fails to analyze a year-long access route traversing north and south along the Rocky Mountain Front.

Visual Resources

E1

These comments indicate the preferred alternative will violate visual standards for the Blindhorse ONA and that no justification is given.

Health and Safety

F1

These comments suggest the draft EIS fails to consider the effects of a hydrogen sulfide blowout on the inhabitants (humans, animals and plants) of the area.

F2

This comment suggests the draft EIS fails to examine the potential effects of a hydrogen sulfide blowout could have on the wilderness area.

Recreation

G1

The respondent indicates the EIS area receives more recreation visitor days than are discussed in the draft.

Vegetation

H1

These comments indicate the draft EIS should include the results of a detailed survey for the presence of rare plants.

H2

The respondent is concerned that the plant species diversity existing in the larger ecosystem could be threatened by development in the EIS area.

H3

The respondent requests the type of disturbance to vegetation discussed in Table 2.7 be defined.

H4

This respondent is concerned about the spread of noxious weeds.

Cultural Resources

I1

These comments indicate the draft EIS fails to fully examine and analyze the impacts to cultural resources.

Socioeconomics

J1

These comments indicate the draft EIS fails to demonstrate a need for oil and gas development.

J2

These comments indicate there was insufficient consideration given to the tourism, outfitting, fishing and hunting values of the EIS area in relation to oil and gas development.

J3

This comment questions the accuracy of the population figures given for Dutton, Montana in Table 3.5 of the draft EIS.

Mitigation Measures

K1

These respondents are concerned that appropriate enforcement provisions have not been built into the mitigation measures discussed in the draft EIS.

K2

The respondent states the draft EIS Mitigation is deficient regarding Endangered Species Act compliance, and is inconsistent with requirements in 40 CFR 1502.22.

Air Quality

L1

The respondent suggests the new Clean Air Bill before Congress will not allow a central processing facility within 20-50 miles of National Forest Land.

Teton Roadless Area

M1

The comment states the Teton Roadless Area is not a segment of the Recreation analysis and should be addressed in much more detail, analyzing the impacts of oil and gas activity on the roadless values.

M2

The respondents state there should be no activity within the Teton Roadless Area until the state-wide wilderness question is resolved.

Fisheries

N1

The respondent asks how road construction/reconstruction will impact the remaining populations of west slope cut-throat trout.

DEIS Development Process

O1

The comments suggest that while the draft EIS was being written some conditions changed, and some of the oil and gas information given in the draft is out-of-date and erroneous.

O2

The comment suggests that adequate consideration was not given to the true scope and magnitude of the project. The respondent feels there is a high probability that several of the exploratory wells will discover additional natural gas deposits, which would require expanded field development.

O3

The comment asks if riparian zones would be impacted and what mitigation would be necessary?

O4

The comment suggests the draft EIS disregards management direction provided by previous BLM planning documents, i.e. the Headwaters RMP and the Outstanding Natural Area Activity Plan and is biased in favor of oil and gas development.

O5

The comment suggests the draft EIS omits the required discussion of "Purpose and Need."

O6

The comment suggests that the draft EIS does not fulfill the NEPA requirement that the Summary stress areas of controversy and the issues to be resolved, consistent with 40 CFR 1502.12.

O7

The respondent requests the land status map (Figure 1.2) be amended to show the BLM's Blindhorse ONA.

O8

The respondent states the Draft EIS Index erroneously refers the reviewer to "Scoping and Issue Identification" on page 139, which is Table 4.4: Mitigation.

O9

The respondent states the draft EIS fails to mention and discuss two recent cases (Conner v. Burford and Bob Marshall Alliance v. Hodel) that are "significant new circumstances" warranting disclosure and re-evaluations.

RESPONSES TO PUBLIC COMMENTS

A1 Although daily visitation to the well sites to examine the production facilities is desirable it will not be necessary. At each wellhead would be a small structure housing a separator and a glycol injection system. Also, depending upon pipelining distance and water production, a dehydration unit may be necessary. However, the separator, glycol injection system, and the dehydration unit can be operated without daily visitation. Daily examination will be necessary for the first 6 months to work out any problems with the system. While daily visitations are desirable to examine the systems for problems and leaks, the EIS requires remote monitoring to mitigate impacts. Proper design and routine maintenance will minimize the chance for leaks. Large leaks could be monitored through the remote monitoring system. Smaller leaks would be detected and fixed during facility inspection visits.

In the highly unlikely event remote monitoring is not possible, it will be necessary to do additional NEPA analysis. If this analysis discloses impacts that would jeopardize a threatened or endangered species timing restrictions may be necessary on the production activities.

A2 The proposed central production facility (see appendix D) would be a closed system type plant. It is true that noise levels will be elevated and that sulfur dioxide, carbon monoxide, carbon dioxide, oxides of nitrogen and small amounts of hydrogen sulfide will be emitted through the burning of sour fuel gas in the reboilers. During upsets all gas should be reinjected; if released, the releases would be burned through a flare system releasing these same pollutants, only in greater quantities to the atmosphere. Also, nuisance odors will be prevalent at the plant. Noise levels will be minimized by using high efficiency mufflers. Plant emissions will be minimized through reinjection of acid waste gases. In addition, the prevailing winds along the Rocky Mountain Front will rapidly disperse any released gases.

The Bureau of Land Management does not approve the installation of the processing plant. Montana Air Quality Bureau and the Environmental Protection Agency (depending upon the emission quantities) will be responsible for permitting the processing facility. The major anticipated environmental im-

pacts from the facility were considered to ensure a complete analysis. These included affects to vegetation and wildlife. For the purposes of this analysis, a study done at the Pincher Creek Gas Plant from 1972 through 1976 was used to determine the impact level. From 1972 through 1976 plant emissions were approximately 125 tons of sulfur dioxide per day. According to the Pincher Creek study results, this level of emissions resulted in some vegetative spotting, but no loss of yield. There was also only a barely discernable trend of soil acidification. No adverse effects to cattle or hogs were observed or discovered through tissue sampling. Under the worst circumstances the proposed plant would release less than 1% of the amount of pollution released from the Pincher Creek plant. The suggestion that this would severely impact vegetation and wildlife is unfounded and contrary to the study results. Concerning the fire hazard, we believe the probability of fire is minimal and would remain insignificant regardless of the facility's location.

A3 According to BLM records only one uncontrolled release of gas occurred from a pipeline failure in the last 14 months (January 25, 1990). As with any mechanical device, pipeline breakdowns and leaks will occur. The reported leak occurred from a weld located along a bend in the pipeline. The leak was repaired promptly (the same day) and the amount of gas released was minor. No other pipeline ruptures were reported.

A4 Acid gas wastes from the processing plant and produced water from individual wells will be injected into the 1-16 well. Two or more tubing strings can be inserted into the well and isolated by packers. This allows injection of both waste gas and produced water in the same well.

A5 The miles of road and pipeline for each alternative is discussed in the Description of Alternatives section in Chapter 2 of both the DEIS and FEIS. None of the alternatives allow 24 miles of road and 37 miles of pipeline within the Blindhorse ONA. Assuming the commenter is concerned about Alternative 4, there would be approximately .5 miles of new road construction and 1.4 miles of road reconstruction within the Blindhorse ONA. At this point, no pipelines are proposed within the ONA: the E-2 well is the only well depicted within the ONA boundary. This well site will require further NEPA analysis and ESA consultation prior to the well being approved for drilling.

- A6** The section titled Scope of the Analysis in the DEIS discusses seismic exploration. The BLM's Outstanding Natural Area Activity Plan and Headwaters RMP, as well as the Lewis and Clark Forest Plan address specific guidance for seismic exploration. This EIS does not change that guidance. The Montana Dept. of Fish, Wildlife and Parks Blackleaf Wildlife Management Area Management Plan (Final, 1990) addresses mineral development in general on their land.
- A7** We have been as conclusive about the timing of drilling operations as possible; however, much of this determination occurs during on-site examinations conducted upon receipt of an Application for Permit to Drill. Drilling will only be allowed between July 15 and December 15 based on the wildlife resource values at a particular site, as explained in Chapter 2, Alternative 4 and in Appendix F of the DEIS. For example, a timing window selected to mitigate impacts to high value fall grizzly bear berry foraging areas (berries ripen through August) would probably be from September 1 - December 15. High density mule deer winter range would require a July 15 - October 30th timing window. Additional discussion related to the respondents concern is given in the answers to comments B3 and B14.
- A8** The BLM and USFS believe visual resources are an important component of this area, as are raptors and their protection. All new powerlines will be buried where possible.
- A9** The DEIS does not discuss slant drilling for several reasons: The geologic environment makes drilling a vertical hole to the objective structure difficult. Drilling a slant or directional hole would be even more difficult and will cost considerably more. Because the development wells will be relatively shallow (4000-7000 ft.) the bottom hole location cannot be located a significant distance from the surface location using simple directional drilling equipment. Recent advances in horizontal drilling have not been attempted in this type of geologic environment. Thrust faults, highly fractured and folded strata, and repeated geologic sections will hamper any attempts at directional drilling. As technology improves it may be possible to slant drill some of these wells. However, distance limitations will always exist and the cost of using the technology will always be considered. Finally, the locations chosen are only best guesses based on available information. Upon receipt of an application to drill, the proposal will be analyzed, including the feasibility of directional drilling. Surface locations will be approved based on the impacts to resources resulting from drilling and production activities.
- A10** On February 18, 1981 the Regional Forester approved oil and gas lease issuance for areas of the Rocky Mountain Front based upon the Environmental Assessment: Oil and Gas Leasing on Non-Wilderness Lands. This document was an interim document pending completion of the Forest Plan. The Forest Plan EIS and Forest Plan incorporated the leasing environmental assessment.
- In September of 1981, the BLM Butte District completed the Environmental Assessment for the Oil and Gas Leasing Program, which covered the Blackleaf EIS Area along the Rocky Mountain Front. This document was designed to assess the impacts and recommend mitigating measures for federal oil and gas leasing within the Butte District.
- In 1983, portions of the Butte District were transferred to the Lewistown District, with the Great Falls Resource Area being established to manage these lands, including the lands within the EIS area. In July of 1984, the Headwaters Resource Management Plan (RMP) was completed and provided a comprehensive framework for managing and allocating public land and resources for Pondera, Teton, Cascade, Meagher, and the northern half of Lewis and Clark Counties. The RMP incorporated the leasing environmental assessment and provides decisions on what public land should be made available for oil and gas leasing and development, and what special stipulations would be needed to accommodate this type of activity. Please refer to page 5, Existing Management Direction, of the Draft EIS. The federal leases within the EIS area are valid; therefore, the agencies must recognize the rights embodied in these leases.
- A11** The Energy Security Act of 1980 and the Mineral Leasing Act as amended require the establishment of an oil and gas leasing program and provides that all lands not specifically withdrawn remain open to mineral entry. The lands within the EIS area are currently leased and therefore, open to exploration. The Forest Service and Bureau of Land Management must analyze any proposed action, utilizing the decision process which is based upon laws, regulations, and policy, not just the likelihood of discovery.

Commercial quantities of gas exist in the Blackleaf field. Cumulative production from this field is in excess of 7 billion cubic feet. Because the geologic environment is favorable, e.g., contains source rocks, reservoir rocks, and structural traps, the exploratory well sites are logical drilling targets. Had we not included the exploratory wells in the analysis we would have been remiss in disclosing the anticipated cumulative impacts. Experience leads us to the assumption that structures surrounding a producing field will be explored. Although it is true that the exploratory wells have a low probability of discovering commercial production, drilling is the only method of verification. We cannot predict with any certainty whether any or all of the exploratory wells will be drilled. Because the wells are located on what are believed to be separate structures, the success or failure of one well may have little impact on the decision to drill additional exploratory wells.

A12 There is a possibility that these leases will be explored. However, we have received no indications that they will be explored in the near future. If all the wells proposed in the EIS are productive it is likely these other leases will be explored. If none of the wells prove productive it is unlikely that these leases will be explored. In addition, some of the 13 leases not being explored are within the Blackleaf Unit area and may be credited with a portion of the production from another lease(s). These leases may then not need to be explored. If development requires the drilling of more wells than those proposed in the EIS additional NEPA analysis will be necessary. This would require additional public scoping, and most likely a full Endangered Species Act Section 7 Consultation.

In any case, all wells proposed for drilling on federal minerals must be posted for a 30 day public comment period. Currently, all federal drilling proposals are posted in the responsible BLM office and surface management agencies' office as required by the 1987 Federal Onshore Oil and Gas Leasing Reform Act.

A13 The biological opinion is prepared by the U.S. Fish and Wildlife Service. Concerns on this issue should be directed to their office in Helena (406) 449-5225.

In addition, the agencies have committed to further NEPA analysis, including ESA Section 7 Consultation on all exploratory wells drilled in the future (page 7 of the Draft EIS).

A14 In comparison to alternative 2, the S-4 well in alternative 4 has been moved approximately 0.25 miles westward to protect important grizzly bear habitat. This results in a vertical drill hole intersecting the reservoir structure significantly lower and much nearer the gas water contact than in alternative 2. Thus, the well will water out faster and will recover significantly less reserves. Because the well sites chosen are based on the best available information and these wells do not exist yet, reserves calculations and production information are estimates developed for analysis purposes. If our model of the S-4 well proves accurate the company may choose to plug back and attempt to directionally drill with the intent of intersecting higher on the structure.

A15 The time frames indicated are one logical sequence of drilling. Many other sequences are possible and the order in which the wells will be drilled is entirely a decision of the drilling permit applicant. The BLM cannot dictate when applications for drilling permits will be submitted. The BLM's responsibility is to analyze the application for technical and procedural accuracy and to develop and apply appropriate mitigation measures to minimize environmental impacts.

A16 The proposed location for the central processing plant is private surface/private minerals. As such the BLM lacks authority over where the facility will be located nor do we participate in the approval process. Approval will be controlled by the Montana Air Quality Bureau and the Environmental Protection Agency. The processing facility is included in the analysis to determine and disclose cumulative impacts. If the processing plant is located further east it will still be on private or state surface and will remain outside the BLM's jurisdiction.

A17 The Rocky Mountain Front Guidelines (April, 1984) do not establish areas available/unavailable for exploration and development; they are not stipulations, but simply guidelines, based on sound scientific findings, to aid land managers in their planning of human activities along the Rocky Mountain Front.

The area unavailable for exploration and development is found under Alternative 3, Figure 2.7. This alternative is the result of strict application of the Guidelines. Wells 1-13 and 1-19 were drilled prior to the development of the Guidelines, and are producing wells.

- A18** We have included a copy of the structure contour maps in appendix E, Figures 1 and 2 of the FEIS.
- A19** A closed system processing plant at each well is not practical. Costs associated with building a processing plant at each site would be prohibitive. The efficiency of such a system would be less than that of a centrally located facility. Also, disposal of acid waste gas and water would be impractical.
- A20** The estimated decrease of 37.4 to 2.8 BCF in recoverable reserves for alternative 2 versus alternative 4 is due to three factors:
1. The S-2 and S-4 wells are relocated and the recoverable reserves estimates are different for each alternative.
 2. Wells S-6 and S-7 will not be drilled should alternative 4 be implemented.
 3. Major production processing facilities, e.g. compressors, storage tanks, and 2nd and 3rd stage high pressure - low pressure separation equipment, will be centrally located. (Centrally located facilities will increase the back pressure on the wells resulting in decreased ultimate recovery.)
- A21** Water required for drilling and development could come from several public or private sources in the immediate area. Considering the availability of water, it will most likely be purchased from a private land owner in the area. Development will require very little water compared to the actual well drilling. During the development phase produced water will be injected to maintain reservoir pressure; very little, if any, purchased water is expected to be injected. Drilling operations will consume an estimated 400,000 to 1,000,000 gallons or 1.2 to 3.0 acre feet of water per well.
- A22** Remote monitoring is an integral part of Alternatives 1, 3 and 4 and is discussed under each of those alternatives in Chapter 2 of the DEIS. Appendix D (DEIS) discusses the central gas processing facility. Appendix L (DEIS) also addresses the remote monitoring process and how it would lessen impacts to T&E species.
- A23** The number of wells analyzed for the preferred alternative includes 6 exploratory wells, 7 step-out wells, and one reentry. These numbers and locations were arrived at using industry input, geologic interpretation, and previous drilling activity. Considering 17 wells have been drilled in the study area, 9 of which have been drilled in the last ten years, we do not believe an estimate of 12 wells is unjustified. Also, we did not propose 12 producing wells. The exploratory wells are assumed to be dry holes because they are not part of developing the known field. We know that the B-1 well did encounter gas, therefore, the reentry will likely encounter gas. That leaves only 6 wells. For these wells we did develop a production scenario so that the worst case total cumulative impacts from the full field development scenario could be assessed. Had we assumed one or more of the development wells would not be productive the analysis would be incomplete.
- A24** The purpose of this EIS is to disclose the impacts of full field development and develop mitigation to minimize these impacts. This analysis is not for the purpose of developing lease stipulations nor will it be used for making leasing decisions. For a discussion of leasing and associated stipulations, the reader is referred to the Lewis and Clark Forest Plan, the BLMs Headwaters RMP/EIS and the BLM's ONA Activity Plan.
- A25** The correction has been made in the Final EIS.
- B1** The agencies recognized certain limitations of using the CEM while the draft EIS was being prepared. During this stage, the CEM was used as a comparative tool; comparing one road route to another, one well site to another, combinations of activities compared to other combinations, or one complete alternative to another. The agencies also recognized that as the CEM is refined and validity and sensitivity tests are performed on it, its utility as a tool of analysis and its contributions to making management decisions would become more meaningful. It was in that context that the CEM was used in the draft.
- Another phase of refining the CEM was a validity study done by Keith Aune of the Montana Department of Fish, Wildlife and Parks. BLM contracted with Aune to complete model testing and validation by comparing this bear data to assigned habitat and mortality risk coefficients and other model outputs. Aune's report was recently released (Aune, K., Dec., 1991, Validation of the East Front Cumulative Effects Model, Montana Department of Fish, Wildlife and Parks, Helena, Mt. 60 pp.).
- Aune's recommendations as given in the last two paragraphs of the report are as follows: "Until

further validation is accomplished and model corrections are implemented, the CEM will not provide adequate prediction for analysis of impacts. The precision in the relationships tested are not as much a concern as are the gross trends in the relationships. This validation process could not confirm positive trends in the relationships between bear use and the predictions of the model or input coefficients. It is unlikely that the process used to test the validity of the model could adequately measure the precision of the model, but it should have demonstrated expected relationships. Once the model can form the proper relational connection with bear use, then fine tuning can occur to increase its precision.

It is recommended that the CEM be placed into a research and development program where it can go through the proper growth and experimentation phases before implementation into management programs. The application of the CEM outside of a specific research and development program has led to premature application and inadequate testing of the model. The results of such application could lead to erroneous decisions regarding habitat management for the grizzly bear. In the interim phases before the model development is completed sufficient knowledge does exist to apply standard protections to habitat when management decisions are needed.”

We cannot dispute Aune’s findings, nor do we wish to, however the best correlations between bear use data and the model were for spring range in the Birch-Teton BMU (Blackleaf EIS area). Spring range is considered the most important for grizzlies in the EIS area. Also, the principle mitigation for grizzlies is to not allow any disturbance activities during the spring.

Regardless, we do agree with the last sentence of Aune’s report as given above. Because of the significant amount of bear data reviewed in the Biological Evaluation/Opinion process and because of the grizzly bear expertise of the working group of interagency biologists involved in the process (including Aune and his assistants) we feel the procedures used and conclusions drawn stand as credible.

As explained in the Biological Evaluation of the draft EIS, pages 222 and 223, the preferred alternative was formulated as a result of interagency work group discussions. Even though, comparisons of well site impacts were made with the CEM, the overriding determinations as to whether or not a site

should be allowed was based on Aune’s distribution and home range data, pages 216-221, as well as the professional opinions of the working group.

Upon reviewing the completed analysis, it is our judgement that no changes in the preferred alternative should be made. No changes in effects on grizzly bears from any activities of this alternative can be determined as a result of deleting the CEM information. The findings of this consultation process are procedurally correct and biologically proper. Further questions of the Biological Opinion can be addressed to the Fish and Wildlife Service, Helena, Montana.

B2 On page 210 of the DEIS in the Biological Evaluation it is recognized that “occupation by a pack of wolves along the RMF is certainly likely in the near future.” On page 240 of the USFWS Biological Opinion it is stated “while available data do not indicate sustained pack activity on the East Front, the potential for pack formation and recolonization through natural recruitment appears imminent.” Thus, both agencies recognized the high probability of a pack of wolves occupying the EIS area, and the assessments completed by these agencies reflect this realization. Predictions were correct as pack activity was then documented through the 1989-90 winter period.

Nevertheless, our analysis does not change because pack activity was subsequently documented. The two principle negative effects on gray wolf from man’s activities would occur if the prey base is reduced or if wolves are shot and killed by man. Both possibilities were considered and commitments have been made to lessen the chances for prey base to be reduced or wolves to be illegally killed.

Now that wolves are actively inhabiting this area of the Front they are being closely monitored by the involved agencies. Should den or rendezvous sites be documented near proposed development activities, the responsible surface-management agency would be required to re-initiate ESA consultation with the USFWS (page 252, DEIS), before anything detrimental could occur.

For additional questions on the Biological Opinion the USFWS has asked they be contacted at their Helena Office, (406) 449-5225.

B3 The introduction of the RMF Wildlife guidelines states “The Interagency Rocky Mountain Front

Monitoring and Evaluation Program was initiated in 1980 in response to the collective needs of the participating agencies. These needs involved both the proactive management of the diverse wildlife resource as well as planning and evaluation of a multitude of human use activities and management of other natural resources. The guidelines developed from this coordinated interagency effort are best management practices to maintain or enhance selected wildlife species and their habitats. Application and monitoring of the guidelines will assist land and wildlife managers in meeting their wildlife and habitat objectives, will assist managers in coordinating multiple-use objectives with the biological requirements of these wildlife resources and will provide an analytical tool in evaluating effects of proposed activities.

It is recognized that all potential activities cannot be conducted simultaneously while maximizing outputs from all resource uses. Multiple-use involves both complementary and competing activities at various times and locations and by definition may involve maximizing benefits from one resource use while precluding all or parts of the benefits of a competing use. The guidelines were not developed with the intent of precluding certain activities, but rather to assist in providing a balance of land uses while at the same time preserving the integrity and diversity of these wildlife resources. It is recognized that application of these guidelines in designing activities may require certain activities to be modified, restricted, or even precluded in order to conserve the diverse wildlife resources of the Rocky Mountain Front. On the other hand, they identify windows of opportunity where little or no competition exists, they identify opportunities for enhancement of these wildlife resources, and, finally, they identify those instances where there is competitive overlap so more informed management decisions can be made, resulting in balanced stewardship of the broad array of national resources.”

On the next page of the guideline document is a section explaining what the guidelines are and how they are to be used. It is further stated, “Management guidelines provide coordination measures designed to avoid or minimize the potential conflicts previously identified between human related activities and wildlife. Although many of the guidelines are applicable to a variety of human activities, some of them are specific to a single activity. Oil and gas exploration and development has received special emphasis due to the relatively high level of activity

in recent years. As a result, some of the guidelines apply specifically to that activity.

The guidelines have not been submitted to interdisciplinary analysis, public comment, or NEPA review. Where they have been employed, they were exposed to this review as part of the public planning process. Decision makers for each agency involved will determine what is a reasonable and prudent application of these guidelines in each case. The resulting planning, evaluation, and decision process will conform to the NEPA process. Departure from the guidelines, the impacts resulting from that departure, and the justification for such departure will be displayed in the appropriate planning documents.

Approved management guidelines will be included in permits, contracts or other formal authorizations of human activities as applicable. Omissions or modifications of guidelines as they are applied to specific activities will be documented in compliance with NEPA.”

In developing the DEIS the guidelines were not ignored/violated; but instead they were used exactly as intended. In fact, the basis for Alternative 3 was strict adherence to the guidelines. Alternative 4 will adhere to all guidelines except, when necessary, it allows BLM and other Surface Management Agencies the flexibility to permit drilling or other activity at a particular site several weeks in front of or after a timing window based on the most important wildlife values at that site (p. 26, DEIS). If drilling activities are not completed within the 105 day drilling window, a short extension of time may be granted after an analysis of the site, climate and seasonal conditions is made by the appropriate agencies. The extension would be granted on a case-by-case basis to reduce impacts, rather than requiring the company to shut down and then re-enter the site the following year. Any extensions would require, at a minimum, informal consultation with the USFWS to determine if a T&E species would be impacted.

BLM made it's best judgment based on past experience about the amount of time it takes to complete an average drilling test (105 days) on the Front; and added the additional time of 15 days to the typical fall drilling window of 90 days as a basis for Alternative 4. The most recent exploratory drilling outside but near the EIS area occurred in the fall of 1989 and was completed in less than 90 days which indicates that in some cases, impacts anticipated with the

longer timing window of Alternative 4 may not actually occur.

- B4** The respondent is referred to the wildlife monitoring program provided in Appendix O of the Final EIS.
- B5** The dangers of hydrogen sulfide blowouts are discussed in the DEIS, Appendix H. The likelihood of a blowout occurring is very minimal. Of primary concern, should this event happen, would be the effects on human beings as is discussed.

The area where the effects would be anticipated to be lethal to humans (Layton, et.al., 1983) would also likely be lethal to wildlife, especially in the immediate locale and downwind of the well site or ruptured pipeline. Vegetation (habitat) would likely be unaffected except in a small area where the condensate from the well bore may fall on the vegetation. This effect would cease once the blow-out is ignited. Therefore, habitat spaces made available from the death of individual animals, i.e., deer mice, would be quickly filled from recruitment from adjacent areas.

For further discussion the respondents are referred to the Health and Safety Section of the Final EIS.

- B6** This issue is partially answered in B-2 above. The biological opinion is prepared by the USFWS. The USFWS has asked us that concerns of revision be directed to them at their Helena Office (406) 449-5225.
- B7** As stated above, please direct concerns on the USFWS Biological Opinion to their Helena Office.
- B8** The Draft EIS portrays wildlife habitats found in the Blackleaf Canyon as well as the rest of the EIS area in Chapter 3, pages 46-61. Threatened and Endangered Species habitats are more extensively discussed in the Biological Evaluation, pages 209-234 of the DEIS. It is recognized that the Blackleaf Canyon is very high value wildlife habitat, as is all of the Rocky Mountain Front in the EIS area. The Blackleaf Canyon area is also an important locale for gas field development. Habitats in the Blackleaf Canyon that would be anticipated to be affected by development are listed on Table 4.20 (4.12 in FEIS) of the DEIS, under wells 1-19, 1-13 and S-5. Prudent application of the "Wildlife Guidelines", remote monitoring, and strict road management will lessen impacts to an acceptable level. Respondents opinion concerning

no drilling in the Blackleaf Canyon is not supported with additional wildlife data.

- B9** The EIS area was based on geological data. The wildlife data collected during the studies undertaken to develop the "Guidelines" is most commonly displayed by Bear Management Unit. It is far beyond the scope of this analysis and unreasonable to assume that we could conduct an analysis on an eco-system wide area as large as the respondents suggest.
- B10** The Biological Evaluation and Biological Opinion, Appendix L, pages 209-254 of the DEIS deal extensively with impacts to grizzlies. The EIS was delayed a number of years so that the Blackleaf-Teton Bear Management Unit could be habitat component mapped and a Cumulative Effects Model developed. Of all the exceptionally high wildlife values in this area, the needs of grizzly bears have received by far the most consideration from all of the involved agencies.
- B11** The scope of the EIS prevents the type of analysis the respondents may have expected. The complexity involved, the number of important wildlife species versus the number of wells programmed versus the number of impacts that could occur (as summarized on pages 95-100 of the DEIS) would make a site by site, specie by specie, impact discussion excessively lengthy and repetitious. Graphs and tables were used as much as possible to portray important wildlife habitats that would be negatively influenced. A more site specific analysis will be undertaken when we actually receive an Application for Permit to drill and the site is staked on the ground.
- B12** Most denning habitat as shown on Figure 3.11. of the DEIS, lies to the west and out of the influence of field development. Table 4.20 of the DEIS (4.12 in FEIS) indicates that only a small portion of denning habitat may be affected should exploration wells E-2 and E-5 be drilled. Drilling would be initiated prior to the time period when bears are selecting den sites. Consequently, bears may or may not avoid selecting a site near the outer limits of the zone of influence from drilling where this denning habitat lies. In other words, adverse effects to denning bears are not anticipated from any of the wells programmed.

The respondent is referred to the monitoring program discussed in Appendix O of the Final EIS.

- B13** Consultation requirements are summarized in the third paragraph of page 209 of the DEIS. Sometimes when a surface management agency does a Biological Evaluation and determines that a “may effect” situation does not exist, they will go ahead and informally consult with the USFWS for further consensus and to keep the latter agency informed of projects programmed in Threatened and Endangered specie habitats. The USFWS is not required to prepare a Biological Opinion in this case, as the consultation is not formal. Informal consultation could take many forms, and often is done by phone conversations between the two agencies. The interagency discussions described in the Biological Evaluation, Appendix L of the DEIS, are an example of informal consultation.
- B14** What the wildlife “Guidelines” are and how they are to be used is explained in B3 above. All guidelines not related to timing windows were to be strictly applied to all alternatives; i.e., no firearms allowed in company vehicles. The preferred alternative would allow the typical fall drilling window to be lengthened by 15 days, as explained on page 26 of the DEIS, so that additional wells over Alternative 3 could be programmed. Species specific timing restrictions are shown on Figure 2.10 of the DEIS. As shown, it is evident that in locations where many important wildlife habitats overlap there is very little time for human activities to occur. Appendix F of the DEIS also discussed feasible timing of activities on the Rocky Mountain Front.
- B15** Poaching in wildlife rich areas of Montana appears to be an increasingly significant problem. However, we fail to see how development of this gas field would contribute to this problem because of the road management program we propose (Figure 2.13, DEIS). In addition, gas field workers are often protective of wildlife in the area and may keep a watchful eye out for game law violators. BLM has oil and gas inspectors making routine inspections that would do likewise. Wildlife monitoring personnel, such as MDFWP employees, would also be spending additional time in the area which would be a deterrent to poachers.
- B16** The Cumulative Effects Model (CEM) measures decreasing habitat value of habitat components assigned relative values of importance as food and cover for grizzly bears. These habitat components would not have the same assigned values for mule deer; for example, riparian components have the highest values assigned for grizzly bear but other habitat components might be ranked as high, or probably higher, for food and cover for mule deer (page 48 of the DEIS). Thus, loss of habitat effectiveness as measured by the grizzly bear CEM does not exactly equate as the same loss for other wildlife. Acres of other important wildlife habitats that might be negatively affected were tabled throughout Chapter 4, pages 100 through 117, of the DEIS.
- B17** The correction has been made in the Final EIS.
- B18** The respondent is correct about the inconsistencies between the text and Table L-2 in the draft EIS. The figures in the text were correct. The correct table has printed in the final EIS.
- B19** It would be impossible to put all of the information given on pages 100-117 of the DEIS in one table given the number of well sites and number of species involved. Table 2.7 of the DEIS summarizes and compares this data by alternative.
- B20** This comment has been answered in B15 above.
- B21** This is the respondents opinion which is not substantiated by additional wildlife data. The Rocky Mountain Front Wildlife Guidelines Studies (BLM, 1987) show that areas at lower elevations to the east of the Blindhorse ONA are significantly more important as high value deer and elk winter range during the critical winter and early spring period.
- C1** Please see response to comment A11, first paragraph.
- C2** Thank you for your comment. No change was made in the Final EIS in response to this comment.
- C3** The Blackleaf EIS analyzes alternative ways of permitting additional drilling and field development in the Blackleaf area. The “no action” alternative described in the Blackleaf EIS is appropriate in this instance. It outlines what would occur if no additional applications for permit to drill (APDs) were approved within the Blackleaf EIS area.
- This EIS was not intended to address the site-specific impacts of bringing existing wells into production. Such impacts have been addressed in a separate environmental assessment (EA) prepared by the Forest Service in response to bringing the 1-

13 well into production. This EA resulted in a decision to approve construction of a pipeline to the 1-8 facility.

A separate environmental analysis was conducted by the Montana Department of Fish, Wildlife and Parks for a second pipeline from the 1-19 well. This resulted in a decision to approve pipeline construction in September of 1990. Both pipelines have been constructed and all existing wells are now in production.

A “retroactive” no action alternative was considered, but not analyzed in detail. This alternative included the removal of existing facilities and rehabilitation of the area to a natural condition. This could be considered a taking of existing property rights and full compensation by the federal government to leaseholders and possibly others for the costs of leases, exploration and development activities completed to date, and the loss of known reserves may be necessary. Also, with drilling projects, the environmental impacts occur as a result of the drilling phase. The production phase adds little additional impact. Therefore, the producing of existing wells would be difficult to deny based on new impacts. This alternative was not analyzed in detail because of the obvious high expense to the federal government and lack of environmental justification for taking such an action. That is, such an alternative is not considered reasonable for purposes of full NEPA analysis.

C4 It is Bureau of Land Management and Forest Service policy that mineral resources be treated as an equal with all other resources, and that, where appropriate, oil and gas development is a legitimate use of the public land.

It is the responsibility of the agencies to analyze proposals; to 1) determine impacts to the environment and 2) prescribe mitigation measures for a range of alternatives. Based on the analysis, an alternative is selected and a decision rendered.

C5 Thank you for your comment. No change was made in the Final EIS in response to this comment.

C6 Please see response to comments A10, A11 and C4.

C7 The estimated impacts of the various alternatives on employment, income, business activity, etc., are

presented in Chapter 4 (Social and Economic) of the Draft and Final EIS.

C8 This alternative was discussed but eliminated from detailed discussion; please refer to page 8 of the Draft EIS.

Removing the existing wells would essentially result in lease revocation. However, once issued, leases confer rights to the lessee to develop the lease according to the terms and conditions contained in the lease and stipulations attached to the APD. Any curtailment of the rights and privileges granted by the lease may be subject to compensation to the lessee and the lessee could seek relief in court.

It is important to note that the agencies (BLM, FS, MDFWP) do not control 100% of the EIS area (23,772 surface acres and 12,160 subsurface acres are fee). Even if the agencies could revoke leases and remove facilities, the area would not return to “pristine”. Industry would likely move to fee minerals to continue development, an action that could be less environmentally sound than developing Federal or State land.

C9 Based on the analysis of Alternatives 3 and 4, the agencies agree Alternative 4 is adequate to protect the resources present in the EIS area as well as develop the oil and gas resource. It is important to remember that the number of wells shown in Alternative 4 is the agencies’ estimate of field development. In actuality, the operator could propose additional wells, which would entail further NEPA (including cumulative effects) analysis and full ESA consultation. On the other hand, less wells could be proposed.

C10 Sequential development would not necessarily be less impacting to wildlife, for the main reason that at certain times of the year (mainly winter and spring) the eastern side of the study area is more important than the western side. The key to lessening impacts to wildlife is through timing windows, as addressed in the wildlife portions of the document.

Monitoring studies will be implemented for wildlife, as well as other resources, to determine residual effects and validate the timing windows. The monitoring plans for the various resources are displayed in Appendix O. Funding requirements have not as yet been determined.

C11 This EIS addresses the impacts expected from development of existing leases. A no leasing alternative was considered in previous NEPA documents prepared by the BLM and Forest Service. As a result of such consideration by the BLM in its Headwaters RMP/EIS, approximately 18,550 acres of Federal minerals along the Rocky Mountain Front will be withheld from future leasing.

D1 Site specific locations of closure devices would be accomplished under the individual project's development plan. The EIS adequately identifies how each access location would be managed for public use in the Preferred Alternative. Specific means of road closures would be determined by factors of topography, land ownership, and enforcement variables.

D2 The EIS's Preferred Alternative displays which access routes would be reclaimed, in the case of a non-producing site, in Table 2.5 of the DEIS. Public access is managed through Travel Plans of the Lewis and Clark National Forest, the Bureau of Land Management, the Montana Department of Fish, Wildlife and Parks, and private landowners. Public use is restricted by these agencies in the study area and currently no ORV use is allowed outside of designated routes identified by these agencies. Transportation planning objectives throughout this EIS attempted to minimize the construction of additional roads, by utilizing existing routes wherever possible.

Appendix B, in the Draft and Final EIS, discusses Standard Management Practices, which address rehabilitation. Wildlife Resources #7 states, "access roads for non-producing wells will be rehabilitated unless otherwise approved by the AO." Figure 2.13 of the DEIS shows roads open and/or closed to public use, and where the closures are.

D3 This correction has been made in the Final EIS.

D4 This correction has been made in the Final EIS.

D5 The entire EIS area is wildlife habitat at one time of the year or another. Table 3.3 in the DEIS shows the transportation system within the study area. Because the area is already heavily roaded, it is only logical that additional short roads be built to access well sites. Also, if wells become producers, it is virtually impossible to not construct a pipeline through some type of wildlife habitat. With proper standard management practices (Appendix B) and

proper mitigation measures shown in Chapter 4, the agencies agree development can occur with the least impacts to wildlife.

The Preferred Alternative is a result of minimizing impacts of road building upon wildlife habitat. In most cases pipelines would be contained within the road construction limits.

D6 Extensive consideration was given to these factors. The public access restrictions and Preferred Alternative reflect the attention to these concerns.

Because of the road management portion of Alternative 4 (pages 27-28 of Draft EIS), there will be no additional general public vehicle access other than what has been proposed and analyzed in the BLM's Outstanding Natural Area Activity Plan. The agencies agree there will most likely be increased foot and/or horseback use on the roads; however, the impacts to wildlife will be minor. Also, remote monitoring of the well sites will significantly lessen how often workers have to visit the well sites.

D7 At the time the EIS was begun, the operator had no urgent needs to install this pipeline; because of the length of time it took to complete the Draft EIS, that need changed. As discussed throughout the document, bringing the 1-13 on line (as well as the 1-19) is part of every alternative, including the No Action. The agencies agreed that with proper NEPA documentation, this could be done while the EIS was being completed. A statement to this effect has been made in Chapter 2 of the Final EIS, Description of Alternatives.

D8 There is currently a county road running basically north and south through the EIS study area. This road was not analyzed because it has been in place for years, will create no additional impacts, and will not be new public access. Also, because of remote monitoring and mitigation limiting how many wells can be drilled per year, it is anticipated there will only be minor increases of traffic on the roads, and only for short periods.

E1 The preferred alternative for oil and gas exploration and production does indeed violate the visual standards for the Blindhorse Outstanding Natural Area (ONA). This violation is allowed under Bureau procedures by an "Area Manager Override" of the standards, if sufficient justification is presented. In this case, should a project actually go forward in this location, it would do so to meet the legal terms of the

oil and gas lease which allows the lessee to actively look for and produce oil and gas resources. These leases were issued prior to the Headwaters Resource Management Plan which designated the ONA, and therefore are not constrained by the ONA protections. Should the leases lapse however, they may be reissued with special stipulations (such as no surface occupancy) to protect the scenic resource of the area or, depending on their location, may not be leased at all. The exact leasing mechanisms for these lands are spelled out in the Headwaters RMP.

- F1** A health and safety section has been added to the FEIS to supplement information contained in Appendix H.
- F2** Because the wilderness lies west of the EIS area, and the prevailing winds are out of the west, there should be no effect to the wilderness area should there be a hydrogen sulfide blowout.
- G1** The draft did not quantify recreation use. Annually there are 600 recreation visitor days on Forest Service lands and 1000 recreation visitor days on MDFWP lands. (Carol King, FS, pers. comm.; Gary Olsen, MDFWP, pers. comm.)
- H1** Two surveys for plants of special concern were conducted in the Blackleaf EIS area prior to the DEIS. Clary Coulee was surveyed by Forest Service Biological Technician, Dana Field, in June and August of 1988. Three species of rare plants were found in this area: round leaved orchis, sparrow's egg lady's slipper, and the showy pussy-toes. Reports of this survey are on file in the Lewis and Clark National Forest Offices in Great Falls and Choteau and the Montana Natural Heritage Office in Helena. In June 1988, Montana Natural Heritage Botanist, Lisa Schassberger, conducted a rare plant inventory of the Blindhorse, Ear Mountain, Chute Mountain, and Deep Creek Outstanding Natural Areas (ONAs) on lands administered by the Bureau of Land Management. No rare plants were found in the Blindhorse ONA, which is within the Blackleaf EIS Area. However, round leaved orchis was found within the Ear Mountain ONA, a few miles outside the boundary of the Blackleaf EIS Area. Schassberger's report, dated November 25, 1988, is on file in the Great Falls Area Office of the BLM.

Because the exact location of proposed developments has not been determined, no further surveys for rare plants have been conducted in the project area to date, except for those described above. However, mitigation measures described in the Final EIS

provide for site specific rare plant surveys to be conducted prior to development. In addition, if rare plants are found, management requirements will be developed on a site by site basis that will allow for the maintenance of viable populations of the rare plants species.

- H2** The environmental impacts of development on the larger ecosystem outside the Blackleaf EIS area were considered in some of the analyses, notably air quality and grizzly bear habitat. For example, the cumulative effects model that was used to evaluate the effects of development on grizzly bear habitat considered the entire Birch-Teton Bear Management Unit, a sub-unit of the Northern Continental Divide Ecosystem. Plant community diversity was identified within the vegetation units mapped in this larger area. However, the effects on plant species diversity, per se, within the larger ecosystem outside the EIS area are not evaluated.
- H3** Disturbance to vegetation occurs when earth moving and related surface disturbing activities occur during construction and maintenance of roads, wellsites, pipelines and production facilities. Vegetation disturbance means a range of activities including: the complete removal of vegetation by a bulldozer or backhoe, physical damage from wheeled traffic or wildfire, physiological damage from chemical spills and/or air pollution, and all other effects of development on plants and plant communities.

The Final EIS describes vegetation effects more explicitly in Chapter 4.
- H4** There is a high probability of noxious weed introduction and spread on the soils disturbed by road and well construction. This was recognized in the DEIS in Chapter 4. Mitigation measures in the Final EIS provide for specific practices designed to reduce the effects of development and to prevent, control and monitor noxious weed infestations that may result from development.
- I1** The Cultural Resources text of Chapters 3 and 4 of the Final EIS has been revised to reference a Nature Conservancy supported archaeological inventory, to identify the major site types discovered in that survey effort and to include a statement that such site types can be expected throughout the EIS area.

The requirement of law and regulation is that opportunities to avoid or implement alternatives not be foreclosed by an agency decision. In the case of small to moderate sites, moderate site densities, and

small, discreet actions, the decision to lease or develop makes no irrevocable decision related to cultural resources. At the time that specific oil and gas activity is planned, cultural resource inventories will be conducted, and specific cultural resources avoided. In the remote possibility that a cultural site cannot be avoided, mitigation will likely make impacts acceptable, through excavation or other data recording means.

- J1** The purpose of this document is not to discuss the need for oil and gas resources. The area is leased and therefore available for exploration. Please see response to A11 above.
- J2** The agencies do not anticipate any change in the recreation/tourism industry as a result of oil and gas development in the Blackleaf area. For this reason, the agencies agree the analysis of the impacts to recreation/tourism is sufficient.
- J3** The 1970 population of Dutton, Montana, given in Table 3.5, should be 415. The table has been changed to show this correction.
- K1** A detailed discussion of enforcement provisions and procedures has been included in Appendix N of the Final EIS.
- K2** Compliance with the Endangered Species Act (ESA) has been met. A Biological Evaluation was prepared for all T&E species listed for this area and “may effect” determinations were made for gray wolf and grizzly bear, pages 212 and 233 of the Draft EIS, respectively. These determinations necessitated formal consultation with the USFWS. Their Biological Opinion of “non-jeopardy” for both species was based on the mitigations listed on pages 236, 238, 246, 247, 249, 250, 251 and 252. BLM and other surface management agencies are obligated to comply with all these mitigative measures in order to insure the “non-jeopardy” situation stands. Deviation of application of these measures could only occur if ESA consultation was re-initiated and the USFWS opinion remained as non-jeopardy when such deviation was considered.
- L1** While the new Clean Air Act would restrict certain types of developments near specific areas, it would not restrict developing a central processing facility within the EIS area.

M1 The agencies agree. Sections discussing the Teton Roadless Area have been added to Chapters 3 and 4 in the Final EIS.

M2 A Montana Wilderness bill has been the subject of a protracted and acrimonious debate. It is not known whether a Montana Wilderness Bill would pass Congress and be signed by the President in 1991. It is not known whether the Blackleaf area would be part of such legislation. Further, the leases in the Blackleaf area represent valid existing rights that would be recognized even if the area were designated as Wilderness, unless Congress terminated the leases. Until Congress and the President change the status of these lands, the Forest Service will follow Congress’ intent by complying with statutory direction (Section 262, Energy Security Act 1980 {94 Stat. 710}).

N1 Cutthroat fisheries are shown on pages 46 and 47 of the DEIS. The only step-out well requiring road construction that would affect cutthroats is S 8, and in the preferred alternative that road was routed so that it would not impact Cow Creek. Dupuyer Creeks, which have the best cutthroat fisheries, are north of field development activity. Should an Application for Permit to Drill an exploratory well be received in the Dupuyer Creek area, we would apply every possible mitigation to eliminate impacts to a fishery from stream crossings. We anticipate that no significant negative effects would occur to cutthroat fisheries from industry activity in this area of the Rocky Mountain Front.

O1 Respondents assert that “the remaining reserves at Blackleaf cannot economically justify an expenditure to cover a new pipeline of 25 miles in length, a compressor and dehydration installment and, above all, a DGA sweetening plant” and that “the 1-5 well is dead.”

It is not the agencies’ position to determine the justification of expenses by the operator. We are required to administer an oil and gas leasing program and ensure that all lands not specifically withdrawn remain open to mineral entry, as these lands are.

Communication with the operator indicates reserves are present to warrant these types of expenditures.

O2 The Scope of the Analysis is addressed on page 4 of the Draft EIS. As stated there, exploratory wells are

part of a reasonably foreseeable development scenario, and were displayed for that purpose. As discussed on page 7, there is a 90% probability these exploration wells will be dry holes. However, when or if an APD is submitted for an exploration well, full NEPA analysis including ESA Section 7 Consultation will be completed. Additional information has been added to this section in the Final EIS.

O3 It is anticipated impacts to riparian zones will be negligible. Standard Management Practices (FEIS, Appendix B) for surface water resources, soil resources and vegetation resources as well as the mitigation discussed on page 137-138 of the DEIS will help alleviate impacts.

O4 Management direction for the Blindhorse Outstanding Natural Area is given in the BLM's Outstanding Natural Area Activity Plan (Final March, 1989). Page 10 of that document states that valid existing mineral rights will apply until these leases expire, at which time No Surface Occupancy stipulations will be attached. These decisions were made because of the wildlife and other resource values present. However, until those leases expire, valid existing mineral rights take precedence.

The Headwaters RMP provides for lands to be managed for multiple resources, including oil and gas. Please see response A10 above.

O5 The discussion of Purpose and Need is given on page 4 of the Draft EIS.

The respondent is under the assumption that the Purpose and Need section relates to the central need for the oil and gas resource. This is incorrect. Purpose and Need as defined at 40 CFR 1502.13 is as follows:

The statement shall briefly specify the underlying purposes and need to which the agency is responding in proposing the alternatives including the proposed action.

In this case, the proposed action is field development of the Blackleaf and surrounding area by the Unit operator. The agencies task is to analyze various levels of field development through reasonable al-

ternatives and provide a full discussion of any significant environmental impacts and cumulative effects that may result from full field development.

O6 The agencies agree; the Summary in the Final EIS has been amended to address these points of concern.

O7 Figure 1.2 is correct in that it shows the Blindhorse ONA (yellow public land). The ONA is also addressed in the text on page 5 of the DEIS under Existing Management Direction.

O8 This error has been corrected in the Final EIS.

O9 The two cases mentioned discussed the validity of leases and the need to prepare an environmental analysis prior to lease issuance. The purpose of the Blackleaf EIS is not to establish the validity of the existing leases, but to disclose and mitigate environmental impacts associated with full field development. No leases will be issued based on this environmental analysis.

Public minerals within the study area were leased based on the Butte District Oil and Gas Leasing Programmatic Environmental Assessment, the Headwaters Resource Management Plan EIS, the Lewis and Clark Non-Wilderness Leasing Environmental Assessment, and the Lewis and Clark Forest Plan EIS. To date, the validity of the existing leases within the Blackleaf area has not been challenged in court. Therefore, we consider these existing leases valid. As such, we are obligated to entertain proposals for the development of the Blackleaf field and to conduct the level of environmental analysis necessary to identify and mitigate impacts associated with full field development.

COMMENTS FROM AGENCIES

The following section contains copies of the letters received from state and federal agencies and elected officials. Immediately following are the agencies' responses to these letters.



DEPARTMENT OF THE AIR FORCE
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION
1114 COMMERCE STREET
DALLAS, TEXAS 75242-0216

Bureau of Land Management
Great Falls Resource Area
RECEIVED
APR 19 1990

16 APR 1990 Great Falls, Montana

Mr. Marvin LeNoue, State Director
Bureau of Land Management
Montana State Office
222 North 32nd Street
Billings, Montana 59107-6800

Dear Mr. LeNoue

Thank you for providing us the opportunity to review the Draft Environmental Impact Statement for the Blackleaf Field Development project Montana.

AM We support the BLM's efforts to develop management plans for lands under its
SLUS control. The issue of primary interest to the Air Force regards the use of
SPE established military training areas and routes for aircraft which may
WMB traverse these areas. Currently, several Air Force flight training routes
RS traverse a portion of the study area (See atch 1).
RC
OT

OT Military training routes and airspace requirements are subject to change,
CT however, it is not anticipated that significant changes to these routes will
PE occur in the immediate future. Mission requirements, fuel costs, and
environmental constraints all contribute to decisions made in locating a
military training activity. Because of general aviation and population
pressures, low altitude, high speed flights are relegated to those areas
least accessible and sparsely inhabited. Therefore, we request that you
give full consideration to how planning and management decisions might
adversely affect the use of low altitude airspace by the Air Force. We
believe unrestricted military use of these routes is essential for training
and combat effectiveness.

In the past, there have been no major problems between the Air Force and the
BLM concerning military over flights of lands under your management. Should
a conflict ever arise, we will be available to assist in establishing
liaison between your office and the appropriate Air Force activities.
We would appreciate your office forwarding future documents of this nature
directly to our office as we will perform the review on behalf of the Air
Force.

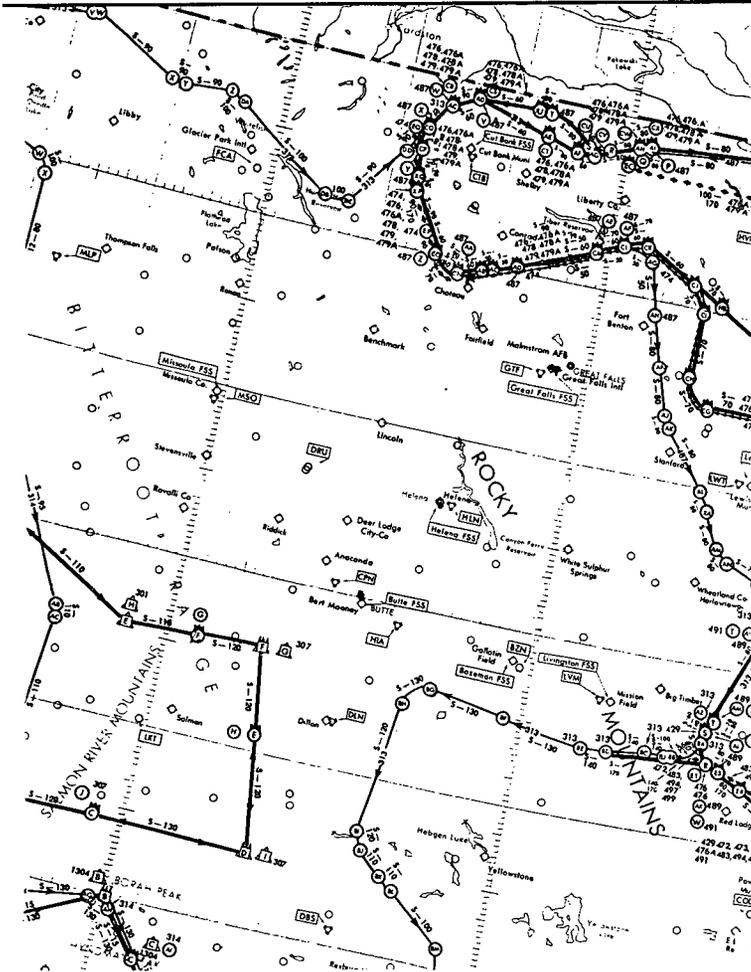
We hope this information is useful in your planning process. Thank you for
the opportunity to review the documents provided. We look forward to
working with your office again in the future. If additional information is
needed, please contact Mr. Raymond Bruntmyer, (214) 653-3341.

Sincerely,

William L. Cox
WILLIAM L. COX, Director
Environmental Planning Division

1 Atch
Flight Line Map

Cy to: HQ USAF/LEEVN
BLM, USFS EIS Project Mgr.
1 CEVGB/RBDR
HQ SAC/DONA
HQ SAC/IGX



35

OFFICE OF THE GOVERNOR
BUDGET AND PROGRAM PLANNING



STAN STEPHENS, GOVERNOR

STATE CAPITOL

STATE OF MONTANA

(406) 444-3616

HELENA, MONTANA 59620

April 18, 1990

Mr. Doug Berger, Area Manager
Great Falls Resource Area
P.O. Drawer 2865
Great Falls, Montana 59403

RE: Draft Environmental Impact Statement - Blackleaf Field Development
Project
Montana State IGR Clearinghouse SAI No. MT900417-579-F

Dear Mr. Berger:

The above-captioned draft environmental assessment has been
received. In order to provide notification to parties that may be
interested in review and/or comment on the proposal, it will be listed in
the next Intergovernmental Review Bulletin issued from this office.

Any inquiries or comments regarding the proposal will be directed to
you. Please forward copies of any comments received to the Clearinghouse
for our files. We have requested that comments be submitted by May 17,
1990.

The Clearinghouse intends to take no further action on this proposal.

Sincerely,

Debbie Davis
DEBBIE DAVIS
Clearinghouse Manager Bureau of Land Management
Great Falls Resource Area

Enclosure

APR 19 1990

**MONTANA INTERGOVERNMENTAL
REVIEW CLEARINGHOUSE
REVIEW AND COMMENT FORM**

Applicant: U.S. Dept. of the Interior, Bureau of Land Management Phone: 727-0503
 ATTN: Doug Berger
 Address: Great Falls Resource Area, P.O. Drawer 2865, Great Falls, Montana 59403
 Subject: Draft Environmental Impact Statement - Blackleaf Field Development Project
 Clearinghouse SAI No. MT900417-579-X

YOUR COOPERATION IS REQUESTED IN COMPLETING YOUR REVIEW AND RETURNING THIS FORM WITH YOUR COMMENTS TO THE ABOVE ADDRESS, WITH A COPY TO THE CLEARINGHOUSE, NO LATER THAN May 17, 1990

	YES	NO	COMMENTS
Is this proposal consistent with the plans, goals and objectives of your agency?			
Does the proposed action conflict with any applicable statute, order, regulation or rule with which you are familiar?			
Does this proposal overlap, conflict or duplicate other existing programs or agencies?			

Describe any suggestions or means of improving or strengthening the proposed plan.

Please convey your general conclusion by checking the appropriate response(s).

Proposal is supported.

Support only with conditions described below.

Non-supportive for the reasons described below.

Additional information is desired as described below.

No comment on this proposal.

Bureau of Land Management
Great Falls Resource Area
RECEIVED
APR 19 1990

REMARKS: _____

Reviewer: _____ Title: _____

Address: _____ Phone: _____

Signature: _____ Date: _____

Return to Applicant listed above, with a copy to: Montana IGR Clearinghouse
 Lt. Governor's Office, Room 210
 State Capitol
 Helena, Montana 59620

Practices for Raptor Protection on Powerlines - the State of the Art in 1981". A copy may be obtained for \$5.00 by writing to:

Jim Fitzpatrick, Treasurer
 Raptor Research Foundation
 Carpenter St. Croix Nature Center
 12805 St. Croix Trail
 Hastings, Minnesota 55033

Since the project may involve crossings and/or work in streams, wetlands, or floodplains, it may be necessary for you to obtain U.S. Army Corps of Engineers Section 10/404 Permits. If such permits are necessary, the Service will be required to review and comment on the permit applications.

This completes the Service's comments on the subject DEIS.

Doh...

cc: Branch of Federal Activities, FWE, FWS, Washington, DC
 ARD, FWE-60120, FWS, Denver, CO

"Take Pride in America"



UNITED STATES
 DEPARTMENT OF THE INTERIOR
 FISH AND WILDLIFE SERVICE
 Fish and Wildlife Enhancement
 Federal Bldg., U.S. Courthouse
 301 South Park
 P.O. Box 10023
 Helena, Montana 59626

43
 DIVISION OF LAND MANAGEMENT
 Great Falls Resource Area
JUL - 2 1990
 Great Falls, Montana
 June 27, 1990

IN REPLY REFER TO:
 M.02 Blackleaf Oil/Gas DEIS
 Field Development

MEMORANDUM

To: Area Manager, Great Falls Resource Area, BLM, Great Falls, MT

From: Field Supervisor, Montana/Wyoming Field Office, Fish and Wildlife Enhancement, FWS, Helena, MT

Subject: Review of Draft Blackleaf Environmental Impact Statement (EC# 90/32)

We have reviewed the above subject document and provide the following comments.

Appendix L of the DEIS contains the Fish and Wildlife Service's (Service) December 20, 1989 biological opinion issued on Alternative 4 (preferred alternative). Page 1 of the biological opinion discusses how the exploratory wells identified in the DEIS must be addressed in the Section 7 consultation process under the Endangered Species Act. We recommend that the final EIS clearly identify the status of the exploratory wells with respect to both NEPA and ESA processes. This can be done by better identifying on page 7 of the DEIS that:

- (1) No decision is being made through this EIS to deny/approve exploration at the exploratory well sites identified in the EIS.
- (2) The exploratory wells are included in the EIS as potential future foreseeable actions associated with field development.
- (3) An APD for any of these exploratory well sites will require an additional NEPA document and Section 7 consultation in which all stages of the action (i.e. exploration through production and abandonment) will be assessed.

The "no jeopardy" conclusion reached in the December 20, 1990 opinion is based, in part, on remote well-head monitoring being incorporated as part of the project design as specified in the DEIS. Should the wells be drilled and brought into production, access to the well sites should be restricted to no longer than a 6-month period after which remote monitoring should be relied upon. Any exceptions to remote monitoring of a well site should be authorized only after consultation with the Service, Montana Department Fish, Wildlife, and Parks, and the Forest Service.

The DEIS indicates that powerlines to producing wells would be required. The Service recommends that these lines be buried where feasible and where above-ground be raptor-proofed following techniques outlined in the Raptor Research Report No. 4, "Suggested



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service **50**

Centers for Disease Control
 Atlanta GA 30333
 July 10, 1990
 Bureau of Land Management
 Great Falls Resource Area
RECEIVED
 JUL 12 1990

Mr. Douglas J. Burger
 Area Manager
 Great Falls Resource Area
 Bureau of Land Management
 P.O. Box 2865
 Great Falls, Montana 54903

Dear Mr. Burger:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the Blackleaf Field Development project. We are responding on behalf of the U.S. Public Health Service.

It appears that appropriate mitigative efforts have been adequately addressed concerning potential water and noise quality impacts. Potential Hydrogen Sulfide emissions which could potentially adversely effect air quality and public health also appear to be adequately addressed. We note in appendix B that Standard Management Practices require that operators prepare a Hydrogen Sulfide contingency plan. On-site monitoring for early detection of this gas should help ensure quick implementation of this response plan should a problem occur.

Thank you for the opportunity to review and comment on this document. Please insure that we are included on your mailing list to receive a copy of the Final EIS, and future EIS's which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).

Sincerely yours,
Kenneth W. Holt
 Kenneth W. Holt, M.S.E.H.
 Environmental Health Scientist
 Center for Environmental Health and Injury Control

DEPARTMENT OF STATE LANDS



STAN STEPHENS, GOVERNOR

CAPITOL STATION

STATE OF MONTANA

(406) 444-2074

1625 ELEVENTH AVENUE
HELENA, MONTANA 59620

July 9, 1990

Bureau of Land Management
Great Falls Resource Area

JUL 11 1990

Great Falls, Montana

Doug Burger, Area Manager
Bureau of Land Management
Great Falls Resource Area
812 14th Street North
P. O. Drawer 2865
Great Falls, MT 59403-2865

RE: Comments on the Draft Blackleaf EIS

Dear Mr. Burger:

The Department of State Lands, Lands Division, has the responsibility of promoting and developing school trust lands for the financial benefit of the common schools in Montana. We manage approximately 1,360 acres of minerals in the unit area and in that regard I would offer the following comments to the above draft Environmental Impact Statement.

- 1) There is a major oversight on the land status map on page 3 as to state mineral ownership. Section 16-26N-8W is shown as being owned by the Fish, Wildlife and Parks Department. While that may be true for the surface, it is not true for the dominant estate, namely 520 acres of minerals underlying that section. Dominant estate in this case means that the right to develop the minerals is reserved to the Department of State Lands without the consent of the surface owner. The State Land Department currently has those 520 acres leased out for oil and gas development and fully expects the lessee to proceed with all diligence to drill sufficient wells to test and produce hydrocarbons from that section.
- 2) The Fish, Wildlife and Parks Department does not speak for the State Land Department. In fact, the recommendations of that department would seriously inhibit development of our land and therefore are at odds with our mandate and indeed, our intent. Further, we are signatories in the Blackleaf Unit and have a vested interest in seeing that the unit as a whole is successful and productive.

"AN EQUAL OPPORTUNITY EMPLOYER"

Doug Burger
Page 2
July 9, 1990

3) Although option 2 would allow the most drilling and the most flexibility to the operator, we believe the total number of wells specified is impractical and would never actually be drilled.

4) We support alternative 4 even though drilling may be limited on some tracts within the unit area and therefore not in our best interest. We find this alternative to be a reasonable compromise between exploitation and preservation, but we would add that any restrictions to the locations of wells could detract from the operator's ability to maximize production from the reservoir.

Sincerely,

Rod Sandahl
Rod Sandahl
Chief
Minerals Management Bureau
Lands Division

RS/vjz

cc: Greg Hallsten, Environmental Coordinator, DSL
Chun C. Wong, Reservoir Management Chief, BLM
Art Wittich, Governor's Office
EPS Resources Corp., Unit Operator

FILE: blacklef.let

Montana Department
of
Fish, Wildlife & Parks



Helena, MT 59620
July 10, 1990

Bureau of Land Management
Great Falls Resource Area
RPO
JUL 16 1990

Mr. Douglas J. Burger, Area Manager
Great Falls Resource Area
Bureau of Land Management
Box 2865
Gt. Falls, MT 59403

RE: DRAFT BLACKLEAF ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Burger,

The Montana Department of Fish, Wildlife and Parks' experiences on the Blackleaf WMA suggest that petroleum development is possible and a compatible activity in critical wildlife habitats, provided that development is regulated in close conformity with the Rocky Mountain Front Wildlife Guidelines. The department concludes Alternative 3, as described in the Draft Blackleaf EIS, would have the least negative impact to wildlife, because it would follow those wildlife guidelines.

We would have preferred a broader range of alternatives. The DEIS associated full compliance with the wildlife guidelines with a limited number of wells. The greater the level of permitted activity the greater the importance of adherence to the guidelines. Accordingly, the DEIS should have included at least one more alternative, similar to the preferred, but with full application of the wildlife guidelines. We are aware that the state is recommending Alternative 4. We strongly urge that compliance with the guidelines be made part of that alternative.

The wildlife guidelines are "best management practices," i.e. human activities that conform with the guidelines will not result in unacceptable negative effects to wildlife. The DEIS indicates that the preferred alternative will result in unavoidable impacts to wildlife because activities will be permitted in critical habitats during sensitive periods. Mitigation for those unavoidable impacts, beyond the measures described in the DEIS, should be required. Mitigation measures are most appropriately developed as stipulations when specific activities are permitted, but the requirement for doing so should be specified by the Blackleaf EIS.

The wildlife guidelines were developed from the best available scientific information. Most of that information is baseline and the lack of wildlife monitoring data, relative to human disturbances, is recognized. Inherent in the guidelines is the

identified need for further monitoring to test the effectiveness and applicability of the guidelines. Accordingly, the Blackleaf EIS should emphasize this need and specify the requirement for monitoring in projects permitted pursuant to the EIS.

Irrespective of which alternative is selected, the following provisions are important to minimize negative effects to wildlife:

1. Mitigation and monitoring, as discussed above.
2. Application of the Rocky Mountain Front Wildlife Guidelines, on a case by case basis, for each oil and gas related activity.
3. Relocate the proposed gas plant at least 2 miles northeast along the main pipeline.
4. Require remote monitoring of the well sites.
5. Institute a firm road management policy that includes restrictions/closures to public use and reclamation of roads that access dry holes and abandoned wells.
6. If alternative 4 is selected, relocate the S-3 and S-5 wells outside the current roadless area.

Several editorial changes in the document would assist the reader to understand consequences to wildlife. For each alternative, activity windows could be displayed in relation to time periods in the wildlife guidelines. Comparison among Tables 4.17, 4.18, 4.19 and 4.20 is difficult, presumably because certain information was inadvertently omitted. There also seems to be a similar problem in Table 4.40.

We appreciate BLM's coordination with the department in the preparation of the draft EIS and this opportunity to provide additional comment.

Sincerely,

K. L. Cool
K. L. Cool
Director

c. Glenn Marx
John D. Gorman
Dan Vincent



The Big Sky Country

MONTANA HOUSE OF REPRESENTATIVES

REPRESENTATIVE JOHN COBB

HELENA ADDRESS: BOX 19 - CAPITOL STATION, HELENA, MONTANA 59620-0114. HOME ADDRESS: BOX 385, COBB CHAROLAIS RANCH, AUGUSTA, MONTANA 59410.

COMMITTEES: NATURAL RESOURCES, FORESTRY, LEGISLATIVE AUDIT

July 14, 1990

Doug Burger, Area Manager, Great Falls Resource Area, BLM, Box 2865, Great Falls, Montana 59403

Re: Comment on Draft Blackleaf Environmental Impact Statement

Dear Sir:

Here are my comments as well as questions concerning the Draft EIS.

- 1. I suggest Alternative 4 over the other alternatives. 2. On page 3 where landowners are identified you seem to divide private & public landowners by a line. Notice Conservancy should be listed then under private landowner if you are going to use a line for distinction of private and public. 3. Appendix J which talks of new plants that could exist in EIS area. That should be listed - do they exist they - or we never really looked at. 4. Does this EIS apply to drilling on private mineral rights on private land with the usual restrictions on it?

o private access to such a drilling site?

- 5. How can the EIS be amended in the future to allow more wells in even slant drilling due to technological advances in drilling? 6. Those leases who leased but can't drill under this Prof? Will they receive their rental & bonus payments back? 7. Because mountain lions are not discussed in detail due to lack of studies - will this later hold up drilling because enough study has not been done on them. 8. Agree that timing windows should be flexible. It would be helpful if drillers knew ahead of time what criteria for lengthening time table would be looked at more favorable and those criteria that would be hard to get. 9. I would encourage the allowance of more exploratory wells to be drilled. Most exploratory wells if located properly and under time windows are not significant human activities that warrant full blown EIS's. It is the development of wells for production that cause significant long term human activities that will affect other natural resources.

Sincerely, Rep. John Cobb

SHANE DEZORT, Commissioner, ALBERT CARLSON, Commissioner, JIMMIE GETTEL, Commissioner, RUSSELL H. ANDREWS, County Attorney, HELEN B. BERGENSON, Clerk and Treasurer, GEORGE D. ANDERSON, Sheriff

JOHN E. BOWMAN, Justice of the Peace, KAREN DEEHLIS, Clerk of Court, FRANK W. WAREHIME, Treasurer, DOROTHY A. SLOTT, Assessor, MELBA JENSEN, Super of Schools, GEORGE W. ANDERSON, Coroner



FAX # (406) 466-5703

July 20, 1990

Mr. Dale Gorman, Forest Supervisor, U.S. Forest Service, Great Falls, Montana 59401

Mr. Doug Burger, Area Supervisor, BLM, Great Falls, Montana 59401

Gentlemen:

This letter is to serve as a formal protest to your Blackleaf EIS. Listed below are the areas of concern that need more attention to detail and corrections:

- 1) AIRFA - mitigation for each alternative as it relates to Antelope Butte aka/Medicine Butte. This area is known to be a vision quest site. Any and all medicine wheels that are located east of Antelope Butte, as well as teepee rings east of the Butte, should have mitigation considerations. 2) Wildlife Impact Section pages 95-99. None of these listed impacts define or quantify expected adverse for each of the listed alternatives. 3) Health & Safety Section - What are the overall impacts from H2S? What is the risk for each alternative specifically? What are the mitigations for each alternative? What about leaks, blowouts and monitoring devices - where are they considered for each alternative? 4) Mitigation on each alternative for sabotage from radical groups. What are the impacts - either socially or economically to area residents?

Office of Land Management, JUL 20 1990, Great Falls, Montana

Office of Land Management, Great Falls, Montana, JUL 20 1990, Great Falls, Montana

These areas of concern should be addressed and added to a draft supplement to produce a complete and comprehensive Blackleaf G.I.S. Thank you for the opportunity to comment on these matters.

Respectfully yours,

Brad DeZort, Chairman

C. Albert Carlson, Member

Arnold Gettel

BOARD OF TETON COUNTY COMMISSIONERS



United States Department of the Interior

NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
12795 W. Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287

119
Bureau of Land Management
Great Falls Resource Area
JUL 23 1990

Bureau of Land Management
Great Falls Resource Area
RECEIVED
JUL 23 1990
Great Falls, Montana

IN REPLY REFER TO:
D18 (RMR-PP)

JUL 14 1990

Memorandum

To: Area Manager, Great Falls Resource Area, Bureau of Land Management, Great Falls, Montana
From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region
Subject: Review of Draft Blackleaf Environmental Impact Statement (DES-90/0009)

The National Park Service has reviewed the above referenced document and offers the following comments.

For your information, there is a proposed National Natural Landmark (NNL) within the Lewis and Clark National Forest. A brief description of the proposed NNL, Castle Reef, is enclosed.

Status as a proposed NNL is granted only to those sites containing one or more ecological or geological features characteristic of a particular natural region, and determined to be of national significance. We would appreciate consideration for this NNL resource.

We appreciate the opportunity to comment on this document. If you have any questions on our comments, please contact Kay Salazar, Division of Recreation Grants and Assistance at FTS 327-2850 or commercial (303) 969-2850.

Richard A. Strait (signature)

Enclosure

For your information, there is a proposed National Natural Landmark (NNL) within the Lewis and Clark National Forest. A brief description of the proposed NNL, Castle Reef is enclosed.

Status as proposed NNL's is granted only to those sites containing one or more ecological or geological feature characteristic of a particular natural region, and determined to be of national significance. We should appreciate consideration for this NNL resource.

CASTLE REEF
Priority: 1 D

Major theme: Paleozoic Time -- Mississippian Formations
Montana Overthrust Belt

Location:
The area is in Teton County, Montana about 16 miles NW of the town of Augusta.

Boundaries and Size:
The land is unsurveyed but probably comprises sections 11, 12, 13, 14, 23, 24, 25, and 26, Twp. 22 N., R. 9 W. It appears on the Castle Reef, Montana Quadrangle, published in 1958 at a scale of 1/24,000.

Ownership and size:
Lewis and Clark National Forest, bordered to the east by other federal and private lands.

Present land nature and use:
No observable land use.

Geology:
Castle Reef is a ragged peak composed of Mississippian Madison limestone which some workers in this area have preferred to call the Hannan Limestone. It is the crest of the easternmost major ridge of the Rocky Mountains in this area and therefore forms a prominent landmark visible from great distances on the plains.

Ecology:
The area can fairly be described as essentially undisturbed and pristine. However, the site is composed mostly of bare rock only locally cloaked with vegetation.

Landforms represented:
Prominent limestone ridge.

Vulnerability:
The rocks are invulnerable and we see no present threat to the vegetative cover.

Recommended by:
M. Hudge, U.S. Geological Survey, Federal Center, Denver, Colorado.

References:
Hudge, M.R., 1972, Pre-Quaternary rocks in the Sun River Canyon area, northwestern Montana: U.S. Geological Survey Professional Paper 663-A, 142 p.

Hudge, M.R., 1968, Bedrock geologic map of the Castle Reef Quadrangle, Teton and Lewis and Clark Counties, Montana: U.S. Geological Survey Geology Quadrangle Map GQ-711, scale 1/24,000.

Hudge, M.R., 1972, Surficial geologic map of the Castle Reef Quadrangle, Teton and Lewis and Clark Counties, Montana: U.S. Geological Survey Geology Quadrangle Map GQ-991, scale 1/24,000.

Other knowledgeable persons:
Both authors have visited the area and seen Castle Reef from the elevation of the creek but neither has actually climbed the mountain.

Recommendation:
Castle Reef is already generally recognized as a prominent natural landmark by all residents of the region and we recommend including it in the register of natural landmarks. However, we suggest that it could reasonably be included in a large natural landmark site which would also embrace the adjacent Sun River Canyon as well as an expanse of prairie land on the plains to the east. The immediate area is so full of excellent sites that we prefer to recommend designation of one large landmark rather than several small ones.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES AIR QUALITY BUREAU



STAN STEPHENS, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

FAX # (406) 444-2606 (406) 444-3454

HELENA, MONTANA 59620

June 21, 1990

Mr. Douglas J. Burger Area Manager U.S. Department of the Interior Bureau of Land Management Great Falls Resource Area Office P.O. Drawer 2865 Great Falls, MT 59403-2865

Bureau of Land Management Great Falls Resource Area JUN 26 1990 Great Falls, Montana

Dear Mr. Burger:

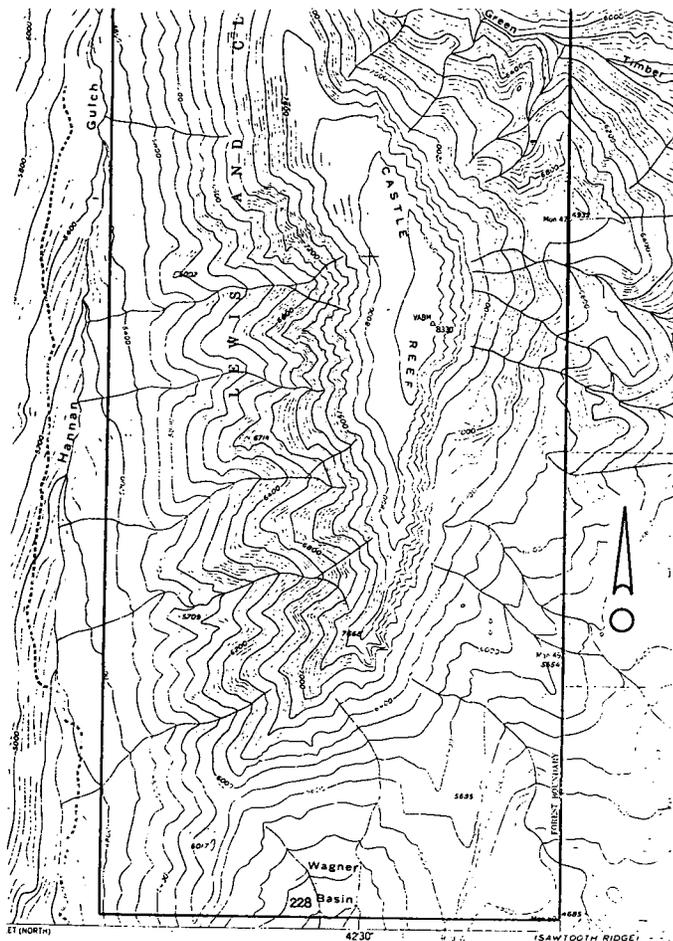
Thank you for the opportunity to comment on the Draft Blackleaf Environmental Impact Statement. The statement does identify the air quality emission sources of concern. However, no mention is made of the state air quality permit requirements which will need to be addressed before construction can begin. The department will require an air quality permit for further drilling rigs, or construction of gas processing facilities which emit sulfur-containing gases into the air. A copy of the Montana Air Quality Regulations is enclosed for your information.

We feel that some mention of this requirement will help to eliminate confusion at a later time.

Sincerely, Jeffrey T. Chaffee, P.E. Chief

JTC/ckp Enclosure

"AN EQUAL OPPORTUNITY EMPLOYER"



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, OMAHA DISTRICT 215 NORTH 17TH STREET OMAHA, NEBRASKA 68102-4978

May 16, 1990

REPLY TO ATTENTION OF

Planning Division

Mr. Douglas Burger Area Manager Bureau of Land Management 812 14th Street N. P.O. Drawer 2865 Great Falls, Montana 59403-2865

Dear Mr. Burger:

We have reviewed the Draft EIS for the proposed field development in the Blackleaf Unit in Montana, and we offer the following comments.

The Federal Flood Plain Management criterion basically states that construction which could be damaged by floodwaters or which could obstruct floodflows should not be located in the 100-year flood plain. If this is not practicable, any residential construction that could be damaged by floodwater should be placed above the 100-year floodwater surface elevation and any nonresidential construction that could be damaged by floodwater should be placed above or flood proofed to above the 100-year floodwater surface elevation and should be designed to minimize potential harm to or within the flood plain. If the operation of the constructed facilities is considered critical during flood periods, the facilities should be protected from the 500-year flood. Flood plain construction should not increase the water surface elevation of the 100-year flood more than 1 foot relative to existing conditions.

If pipeline construction is proposed that crosses flood plains of small drainageways and streams, flood-related problems should not occur with underground pipelines if the lines are buried far enough below the beds of drainageways and streams to prevent exposure due to streambed erosion during periods of high floodflows and if any aboveground construction subject to flood damage is either placed above or flood proofed to above at least the 100-year flood elevation.

If roadways are to be constructed, the design should ensure that the project is in compliance with flood plain management criteria of Teton County and the State of Montana. As a minimum, the design should insure that the 100-year flood water surface elevation of any stream affected is not increased more than one foot relative to pre-project conditions. It is desirable, however, that water surface elevations either remain the same or decrease as a result of this project.

-2-

Your plans should be coordinated with the U.S. Environmental Protection Agency, which is currently involved in a program to protect groundwater resources.

If you have not already done so, we recommend that you consult with the U.S. Fish and Wildlife Service and the state agency responsible for fish and wildlife resources. In addition, the State Historic Preservation Office should be contacted for information and recommendations on potential cultural resources in the project area.

Any activity which involves the placement of dredged or fill material into a waterbody or wetland area would require a permit pursuant to Section 404 of the Clean Water Act. Final project plans should be sent to: Mr. Robert McInerney, U.S. Army Corps of Engineers, c/o DNRC/CDD, 1520 East 6th Avenue, Helena, Montana 59620-2301 for a detailed review of permit requirements.

If you have any questions, please contact Mr. Steve Rothe of our staff at (402) 221-4579. Thank you for the opportunity to review this proposal.

Sincerely, Richard D. Gorton Chief, Environmental Analysis Branch Planning Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

Ref: 84M-EA

JUL 16 1990

Mr. Dale Gorman, Forest Supervisor
Lewis & Clark Forest
Great Falls, Montana 59403

Re: Blackleaf Draft Environmental
Impact Statement

Dear Mr. Gorman:

In accordance with our responsibilities under the National Environment Policy Act (NEPA), and Section 309 of the Clean Air Act, Region VIII of the Environmental Protection Agency (EPA) has completed its review of the Draft Environmental Impact Statement (DEIS) for the proposed Blackleaf development project.

This DEIS is well written and comprehensive in its identification of potential impacts, although it would make the areas of environmental concerns more accessible if environmental impacts had been treated in a similar manner to other areas of potential impacts by having been identified by that name in a section devoted to their analysis.

There are a number of areas where the Region has found it has concerns with the analysis of potential impacts offered by the BLM, and where we feel additional information needs to be provided in the Final Environmental Impact Statement (FEIS) NEPA analysis.

Of concern in all of the alternatives under consideration:

- 1) The EPA would be interested in knowing what technology is being considered for "sweetening" the recovered gas. We have observed that some technologies being used in other locations in the Region have had a history of continual operating problems which have resulted in unplanned releases of sometimes lethal gases. The EPA would like to have specific information in this area, as well as anticipated gas venting activities associated with site development.

Concerning specific alternatives:

The DEIS states that Alternative 3 incorporates the guidelines of the (Interagency) Rocky Mountain Front Wildlife Guidelines (RMFWG). It is further indicated that the BLM found the terms of the guidelines to be incompatible (in general) with the goals of the development alternatives, as they would restrict development to less than 50% of the project area, and specifically from the most promising areas for resource development on the site.

The EPA would like to see a further discussion of the guidelines and their incompatibility with stated project objectives. Did the terms of the guidelines assist or influence the BLM in structuring or evaluating the alternatives? As we support the intent of the guidelines to protect important species habitat and to restrict human activities which are destructive to such preservation, we would like to fully understand the incompatibility of those goals with these proposals. We question whether some aspects of the guidelines might be usefully incorporated into Alternatives 2 and 4 to lessen their current levels of impact on wildlife habitat. Perhaps this has already been considered.

Region VIII accepts that non-development of resources in a country with a growing and dynamic economy is not an attractive or generally acceptable option. However, to the extent possible, the EPA would like to see such development on public lands take place with the highest regard to the preservation of wildlife values. To the extent that appropriate provisions of the RMFWG or Alternative 3 may be incorporated into Alternatives 2 and 4 and still produce a viable resource development project, we encourage the BLM to do so. The FEIS should explore this option.

Although our comments have proved rather lengthy, we would like to commend the BLM on the quality of the analysis presented in this DEIS. We appreciate your participation in the NEPA process, and the opportunity to review this document.

In consideration of the above comments and using our EIS rating procedure, Region VIII rates this DEIS EC-1. This indicates that the EPA has identified areas of environmental concern within this document. Additional information is required in areas identified as being deficient in this letter. Changes in the conception of this project or in the execution of project activities may also be required in order to meet objections raised by the EPA in this NEPA review process.

- 2) In the event that exploration activities uncover fossil remains in the area, what response would operational guidelines prescribe? How would exploration activities be effected under such a scenario? 2
- 3) Where forage is lost to wildlife as a consequence of these proposed activities the BLM states that; "Much of this impact would be mitigated by reestablishing the vegetation after rehabilitation of drill sites and pipeline routes." (page iv). What is the timetable for such mitigation? It appears that there would be an interim period between the initial site disturbance and the institution of mitigating measures. What plans are in place to mitigate for this interim forage loss? In what cases would continuing human presence and activities, whether resource development related or as a result of increased area access to the general populace, discourage displaced animal populations from reoccupying disturbed land? In these cases forage is lost long-term, to all or a part of the displaced animal population. Full mitigation should not be claimed if the all or part of the animal population which lost forage land appears unlikely to return to utilize it. Loss estimates of this type, and it appears that there would be some, need to be documented. 3
- 4) What would be the timetable for mitigation of this type of loss? 4
- 5) The EPA accepts the statement by the BLM that "no amount of design or mitigation would reduce the impacts to an acceptable level for this rating" (page iv), in reference to the loss of value to land with a Class I visual management objective rating. Therefore, the EPA feels that any planned activity which would result in such an impact should be avoided. 5
- 6) While the EPA accepts that air and water quality impacts appear to be minor concerns in these proposals, to insure this aspect of development activities, we would still like to see water and air quality monitoring activities formally incorporated into the operating plan for this project. Appropriate state and local agencies should be informed of any program adopted. 6

If you have any comments or questions concerning this letter, please call either myself, or Gene Kersey, Project Review Officer, at FTS 330-1699, or commercial 303-293-1699.

Sincerely;

FOR Robert E. DeSpain, Chief
Environmental Assessment Branch
Water Management Division

RESPONSES TO STATE, FEDERAL AND ELECTED OFFICIAL COMMENTS

**Letter #34
Dept. of Air Force
Comment** 1) Management actions within the EIS area should not impact the use of low altitude airspace by the Air Force.

**Letter #35
Office of Gov.
Budget & Program
Planning Comment** No specific comment noted.

**Letter #43
USFWS
Comments** 1) This information has been included in the Final EIS under Scope of the Analysis.

2) This information has been put into Chapter 5, Mitigation, under Wildlife Resources.

3) The Final EIS has been amended to show that all powerlines will be buried.

**Letter #49
Dept. of Health
& Human
Services
Comment** 1) Remote monitors set at a detection level of 10 ppm are maintained in the drill rig cellar, mud tanks and shale shakers. These monitors will activate an audible/visual alarm when H₂S concentrations of 10 ppm are encountered. Monitors are a requirement of every H₂S contingency plan. The text has not been modified as this is standard management for drilling operations in areas likely to contain H₂S bearing strata. Detailed regulations regarding H₂S are contained in Onshore Order No. 6.

**Letter #50
MDSL
Comments** 1) The Land Status Map on page 3 of the Draft EIS intended only to show surface ownership and Federal mineral ownership. We concur DSL owns 520 acres of minerals in Section 16, T. 26 N., R. 8 W., and that mineral estate dominates surface estate. The agencies involved (DSL & MDFWP) must cooperate in the development of those acres.

2) Please see response to #1 above.

3) The number of wells displayed under Alternative 4 is the agencies estimate of full field development, displayed to analyze cumulative impacts. The actual number of wells to be drilled is the operators prerogative.

Letter #57 MDFWP Comments

1) All Rocky Mountain Front Wildlife "Guidelines" except those related to timing windows were to be strictly applied to all alternatives, i.e., no firearms allowed in company vehicles. Alternative 3 is the alternative with full application of the wildlife guidelines including prescribed timing windows. The basis for this alternative was to drop all exploratory and step-out well sites given in Alternative 2 that were in locations where overlapping wildlife habitats prevented less than a 90-day timing window for drilling activity to occur (assuming that is the least amount of time necessary to drill a well in this part of the Front).

2) The FEIS, Chapter 1, Scope of the Analysis section describes the process to be undertaken when an APD is received subsequent to this EIS, and that process includes a more site-specific analysis. Fish, Wildlife & Parks is correct when they state "mitigation measures are most appropriately developed as stipulations when specific activities are permitted." Surface management agencies will use this permitting process and corresponding on site inspections to develop the most appropriate and most protective stipulations that can be patterned for this site. The monitoring program designed to measure the effectiveness of site-specific mitigations as well as the wildlife guidelines is given in Appendix O of the Final EIS.

3) 1. As discussed above, see Appendix O of the Final EIS.

2. Application of the Guidelines is discussed in Comment #1 above.

3. The gas plant, as located, is on private land over private minerals and requires no federal action. However, the operator is continuing to discuss options as to where the plant is to be located; the preferred site is as shown in the document.

4. Remote monitoring is a requirement of all Alternatives except Alternative 2. Remote monitoring is the most important mitigation that can be applied during the life of the field and will significantly lessen the degree of disturbance to wildlife through the life of this gas field. Obviously, remote monitoring is an important part of project design.

5. Another very important part of lessening impacts to wildlife is control and reclamation of gas field roads. Since Fish, Wildlife and Parks is the surface owner over much of the Blackleaf gas field, decisions concerning restrictions/closures to public use and reclamation of unneeded roads will be up to that agency. All newly created roads should be closed to public travel and reclaimed when no longer needed.

6. The Final EIS contains a separate section on the Teton Roadless Area. These wells are analyzed against the criteria for designating an area roadless. The impacts from these wells are such that the roadless characteristics are not impugned.

4) The acreage calculations were inadvertently omitted from the tables in two of the alternatives. The tables have been corrected in the Final EIS so that information can now be compared. We apologize for not having included this information in the Draft EIS.

1) We recognize The Nature Conservancy on Figure 1.2 should have been displayed under private landowners. However, the map will not be changed.

2) Appendix J shows rare plants that could exist in the area because those

plants are found in areas similar to the EIS area. A rare plant inventory was done for the Blindhorse ONA in June of 1988; no rare plants were found. Clary Coulee was surveyed by a Forest Service Biological Technician in June and August of 1988. Three species of rare plants were found in this area. When the agencies receive an application to drill, a rare plant inventory will be done prior to approval. If rare plants are found during this inventory, management requirements will be developed on a site by site basis that will allow for the maintenance of viable populations of the rare plant species. The text in Chapter 3 has been amended to include this information.

3) This EIS does not affect oil and gas development on private land/private minerals as no Federal action is necessary. Recommendations made in this EIS apply only to federally managed surface and/or subsurface acreage.

4) Slant drilling would not require amending the EIS. Site specific NEPA documentation at permit time would address this activity, as would additional wells above the number addressed in Alternative 4. If an additional field is discovered outside the study area analyzed by this EIS, an additional field development analysis would be done after this first confirmation well is drilled.

5) With this document, the agencies have not denied a lessee the right to develop his lease. The wells shown are the agencies estimate of field development within the area. If a lessee requests to drill in an area different than those shown on the maps, further NEPA analysis, including full ESA consultation, will be done. No leases have been "condemned" by this document. Please refer to the Scope of the Analysis on page 4 of the Final EIS.

6) It is anticipated that lack of mountain lion data will not delay development. However, MDFWP has initiated a mountain lion study to obtain base-line information.

**Letter #69
John Cobb
MT House
of Rep.
Comments**

7) The flexibility of timing windows will be addressed during site specific NEPA analysis and as site specific drilling develops. Please see FEIS, Chapter 2, Alternative 4 discussion.

8) The exploratory wells shown are “best guesses” of where the agencies think exploration activity may occur. Exploratory wells within the EIS area will be analyzed in accordance with the EIS and will require complete analysis (including production) and full ESA consultation with the USFWS.

**Letter #94
Teton County
Commission
Comments**

1) Information has been added in the Final EIS to the Cultural Resource section in Chapter 4 and the Standard Management Practices in Appendix B.

Avoidance will be the primary means for mitigating impacts to cultural resources.

2) Chapter 4, introduction to the wildlife section, summarizes Bromley, 1985, and is included so that the reader may understand how complex the determinations of impacts on wildlife from oil or gas field activities are. Generally, most if not all environmental disruptions and associated primary and secondary impacts could occur as the Blackleaf Gas Field develops. To quantify how much habitat would be disturbed, a 1-mile buffer was constructed around each facility as explained on page 100 and acres of important habitats that might be influenced were given for each Alternative on Tables 4.17, 4.18, 4.19 and 4.20. Acres were inadvertently left out of Tables 4.17 and 4.18; these corrections were made in the Final EIS (the tables have been renumbered in the Final EIS: 4.9, 4.10, 4.11, and 4.12, respectively).

3) Health and Safety sections have been added to the Final EIS, Chapters 3 and Chapter 4.

4) A discussion as to the potential of sabotage is beyond the scope of this document. However, if this became a problem, the agencies would develop a

program of increased enforcement patrols in the area.

**Letter #119
USDI-NPS
Comment**

1) The Castle Reef proposed National Natural Landmark is south of the EIS and will not be impacted by the proposed activity.

**Letter #120
State of MT
Air Quality
Bureau
Comment**

1) The text has been amended to address these concerns, see FEIS, Chapter 4, Air Quality.

**Letter #121
Dept. of Army
Corps of
Engineers
Comments**

1) Restrictions on construction in floodplains are further explained in the Surface Water Resources section of Appendix B: Standard Management Practices. Specifically, SW-1 has been amended to state: “Where possible, all construction activities will be located outside any of the floodplains. Where this is not practicable, construction that could be damaged by floodwater or that could impact water quality will be placed above or flood-proofed to above the 100-year floodwater surface elevation to protect the water and floodplain.” Neither residential construction nor facilities critical during flood periods are contemplated as part of the project.

2) Item SW-1 in the Surface Water Resources section of Appendix B: Standard Management Practices, has been amended to include: “Pipelines constructed across flood plains of small drainageways and streams will be buried below the scour line of the beds of drainageways and streams, to prevent exposure due to streambed erosion during periods of high floodflows.”

3) Item SW-4 of the Surface Water Resources section of Appendix B: Standard Management Practices, has been added: “Roadway construction will comply with flood plain management criteria of Teton County and the State of Montana and that the 100-year flood water surface elevation of any stream, if affected, is not increased more than one foot relative to pre-project conditions”.

4 & 5) These agencies (the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the Montana Department of Fish, Wildlife and Parks) have all been given the opportunity to participate in or review this project. The State Historic Preservation Office also reviewed the Draft EIS and had no comments.

6) Item SW-2 of the Surface Water Resources section of Appendix B: Standard Management Practices, has been amended to clarify that "Excavated material will be located away from free-flowing streams and outside floodplains. Placement of dredged or fill material into a waterbody or wetland area, while not presently contemplated, would require a permit under Section 404 of the Clean Water Act. Any construction involving a stream channel will require the filing of a FG-124, Notice of Construction or Hydraulic Project affecting Fishing Waters, with the Montana Department of Fish, Wildlife and Parks."

**Letter #123
EPA
Comments**

1) The most up-to-date information the agencies have on the sweetening plant is addressed in Appendix D, submitted by the Unit Operator. It is important to remember that because the gas plant will be located off federal minerals, the BLM will have no approval or denial authority. A State of Montana Air Quality Permit will be required prior to construction of this facility. Also, depending upon the emission quantities, a PSD (Prevention of Significant Deterioration) permit may be required from EPA.

2) In the event fossil remains are found during exploration or development, all activity would cease and the BLM, USFS or MDFWP notified. All activity would remain halted until a paleontologist could analyze the fossils. Mitigation, if necessary, would be developed.

3 & 4) To make the determination of loss of habitat or populations would be very difficult, but we assume some degree of avoidance by wildlife of the areas dis-

turbed by a development well will occur from initial drilling through abandonment and then until successful reclamation. The last three paragraphs on page 113 of the DEIS recognize the extent of wildlife loss that could occur. Full mitigation will only occur after successful revegetation and complete road obliterations.

5) Leases within the Blindhorse ONA are held by production, meaning they remain valid as long as the wells in the Blackleaf Unit are producing, or until the Unit contracts. Should those leases within the ONA expire prior to a producing well being drilled on a lease, they will either not be reissued or issued with No Surface Occupancy stipulations. Until that occurs, the leases are valid and available for development.

6) Because the gas plant will require a State of Montana Air Quality Permit, the State Air Quality Bureau will monitor air quality. Water quality monitoring will be done through water samples taken by the BLM on a random basis.

7) We are forwarding a copy of the Rocky Mountain Front "Wildlife Guidelines" to your agency. As you will see, there are many guidelines unrelated to timing windows that will be applied when applicable for all of man's activities on the Rocky Mountain Front.

Alternative 3 was developed by strict adherence to guideline timing windows, while Alternative 4 allows a 15 day extension on the front or back of the typical fall drilling window, depending on the wildlife values determined from the on site inspection. Responses given to B-3, B-14 and to the Montana Department of Fish, Wildlife and Parks 1, 2 and 3.2 are also applicable.

**Letter #124
State Historic
Preservation
Officer
Comment**

No response required.