

**VERITAS DGC LAND INC.
HAY RESERVOIR 3D GEOPHYSICAL PROJECT**

**DECISION RECORD
AND
FINDING OF NO SIGNIFICANT IMPACT**

Introduction

Veritas DGC Land Incorporated (Veritas) filed a Notice of Intent in December 2001, to conduct a 3D seismic operation on public lands in the Rock Springs and Rawlins Field Offices. The project boundary was revised several times with the last revision in October 2003 (see Appendix A of the attached environmental assessment [EA] for specifics). The revised project area covers 279 square miles. The project is approximately 24 miles by 19 miles and covers approximately 178,560 acres. Of the total acreage in the project area, 164,352 acres are BLM-administered public land, 9,728 acres are state-owned land, and 4,300 acres are private land. About 70% of the prospect falls within the Rawlins Field Office. The remaining lands are within the jurisdiction of the Rock Springs Field Office.

Actual surface use by the proposed project would be restricted to 100-foot corridors along the source lines and small staging and survey base station areas. A map showing the exact proposed locations of source and receiver points is on file at the BLM Rock Springs Field Office (RSFO). Portions of the project occurring on state and private lands are not subject to BLM authorization. All lands affected by the proposed project include:

T22N R96W Sections 2-6
T22N R97W Sections 1-5

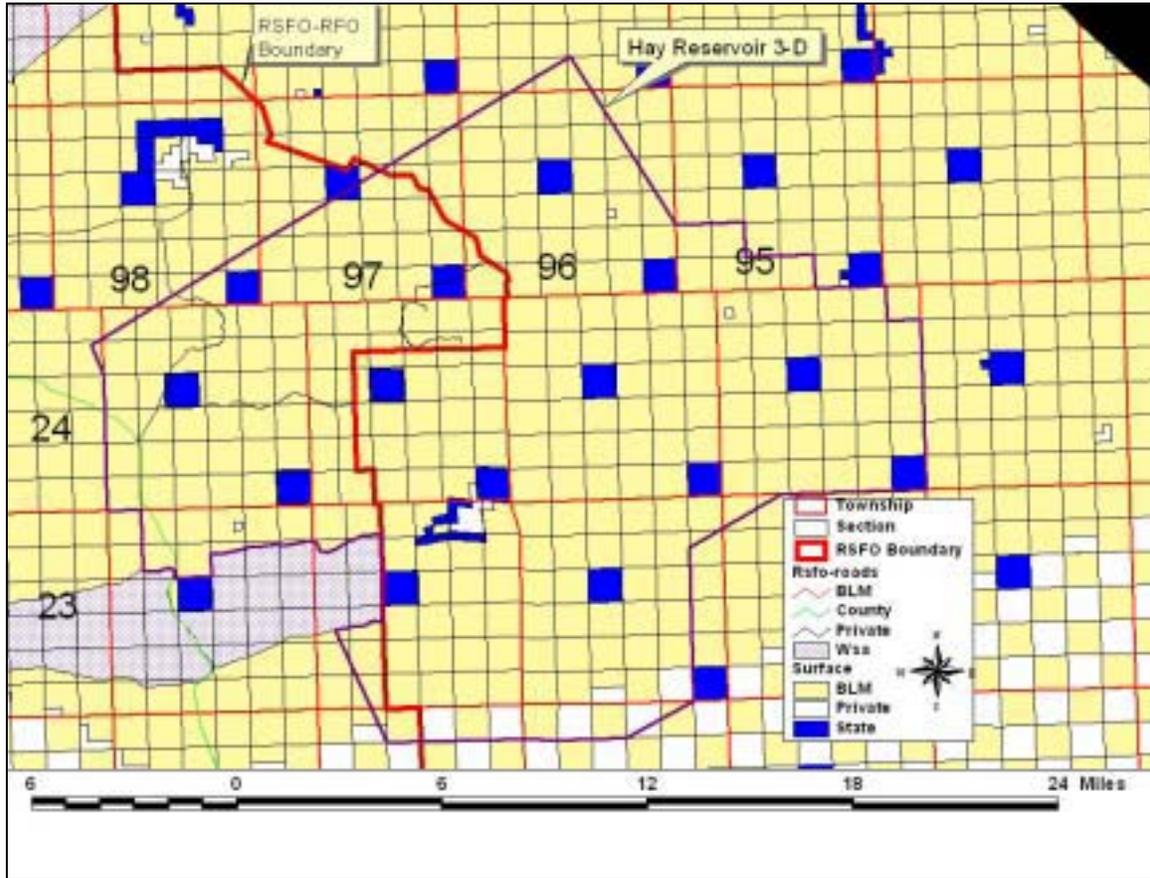
T23N R95W Sections 5, 6
T23N R96W Sections 1-12, 14-23, 26-35
T23N R97W Sections 1-7, 9-16, 19-30, 32-36
T23N R98W Sections 1-5, 8-11

T24N R95W Sections 2-36
T24N R96W Sections All
T24N R97W Sections All
T24N R98W Sections All
T24N R99W Sections 1, 12

T25N R95W Sections 29-34
T25N R96W Sections 2-11, 13-36
T25N R97W Sections 11-16, 19-36
T25N R98W Sections 25, 26, 34-36

Sixth Principal Meridian, Sweetwater County, Wyoming

Project Map



Alternatives Considered in the Analysis

The attached analysis considered two alternatives, the proposed action and the no action alternative. Both are described in detail under Section 2.0 of the attached EA.

Alternatives Considered but Eliminated from Detailed Study

Several alternatives were considered but eliminated from detailed study. These alternatives include man-portable drilling, heliportable drilling, and poultter shot methods of conducting seismic activity. These alternatives were found to be economically unfeasible to meet the purpose of the proposal. The rationale for eliminating these alternatives can be found in Section 2.3 of the attached analysis.

Decision

Based on the analysis contained in the attached EA, it is my decision to approve the proposed action and authorize geophysical exploration as described in Section 2.1 of the attached EA. Veritas may proceed with the Hay Reservoir 3D vibroseis project once the Notice of Intent is approved and all necessary clearances are completed. Geophysical operations will be subject to the measures identified in Appendix A of this decision in addition to the standard conditions contained in the approved Notice of Intent.

Rationale for Decision

My decision to approve this action is based upon the following:

- The proposed action is in conformance with the land use plans for the Rock Springs and Rawlins Field Offices which allow geophysical operations including 3D vibroseis.
- The proposed action would avoid unnecessary and undue impacts to resource values addressed in the attached EA (see Sections 3.0 and 4.0).
- Public participation, consultation, and coordination have occurred. BLM issued a news release on April 30, 2002, allowing a 30-day comment period. All issues brought forth during scoping have been considered. Public comment letters and BLM's response can be found in Appendix B of this decision.
- No listed, proposed for listing, or candidate species are affected by the proposed action. U.S. Fish and Wildlife Service has determined that mountain plover does not warrant listing under the Endangered Species Act and is considered a BLM sensitive species. All BLM-identified sensitive species have been given consideration and adequate protection.
- This decision is consistent with all federal, state, and county authorizing actions required to implement the Proposed Action. All pertinent statutory requirements applicable to this proposal were considered. Compliance with Section 106 of the Historic Preservation Act will be completed prior to seismic operations.

Finding of No Significant Impact

Based on the analysis of potential environmental impacts contained in the attached EA, I have determined that impacts are not expected to be significant and therefore, an environmental impact statement is not required.

Appeal

This decision is effective upon the date the decision or approval by the authorized officer. The decision or approval may be appealed to the appropriate office of the Interior Board of Land Appeals in accordance with regulations contained in 43 CFR 3150.2. If an appeal is filed, a copy of the notice of appeal must be filed in this office (Rock Springs Field Office, 280 Highway 191 North, Rock Springs, Wyoming 82901) within 30 days of receipt of the decision. Allowing 7 days mailing time, the appeal period ends 37 days from the date of this decision. The appellant has the burden of showing the decision or approval appealed from is in error. If you wish to file a petition for stay pursuant to 43 CFR 3150.2(b), the petition for stay should accompany your notice of appeal and shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
4. Whether the public interest favors granting a stay.

Each adverse party to an appeal must be provided copies of all documentation. The adverse party for this action is:

Rick Tervino
Veritas DGC Land Incorporated
10300 Town Park
Houston, TX 77072


Assistant Field Manager,
Lands and Minerals

12-9-03
Date

APPENDIX A
SPECIAL TERMS AND CONDITIONS

**Rock Springs Field Office
Rawlins Field Office**

**Veritas DGC Geophysical, Inc.
Hay Reservoir 3D Geophysical Project**

WY-040-EA02-133

The following measures are in addition to those incorporated into the Notice of Intent to conduct this project.

Authorization

The Plan of Operations submitted with the Notice of Intent to Conduct Geophysical Exploration is considered an integral part of the project proposal and must be followed during the execution of the project.

Existing Roads and Structures

1. Any damage to existing roads, water diversion structures, cattle guards, and fences caused by the activities shall be repaired to the same or better condition as existed before the activities were initiated. To help prevent watershed damage and erosion, cross country vehicular travel across BLM-administered land will not be conducted during periods when the surface soils are wet and saturated. Surveying paint shall not be applied to any existing structures or objects (i.e., buildings, fences, signs, rocks, etc.).

Cultural Resources

1. Impacts to cultural resources will be mitigated by following the procedures specified in 36 CFR 800. A file search and a Class III archaeological inventory will be conducted for the source lines, helicopter staging areas (*only if staging area are to be located on non-disturbed ground or in areas that have not had a Class III cultural inventory*), and drive-around routes to the receiver/source lines. Any cultural sites recommended as avoidance areas will be appropriately designated by flagging the entire periphery of the site location or designating a drive-around route.
2. All avoidance areas identified by the archaeological consultant and the BLM will be followed. Maps indicating the drive-around routes shall be carried by personnel in the field. If the situation arises where project personnel cannot determine the appropriate drive-around routes, Veritas DGC must request assistance from either the consultant or contact a BLM archaeologist.
3. Any cultural resources discovered during operations will be reported immediately to BLM. Work will be halted in an area large enough to maintain integrity of the site and the site will be evaluated for significance. Evaluation may consist of, but not limited to, avoidance, testing, excavations, mapping, and/or further archival documentation. All evaluation efforts will be developed in cooperation or concurrence with the BLM and SHPO.

4. Buggy-vibe traffic on BLM-administered land shall be confined to a single pass within a corridor 100 feet wide (50 feet either side of the flagged centerline) along off-road routes and roads and trails which have been inventoried for cultural resources and which are free of significant or unevaluated cultural resources.

Native American Religious Concerns

1. If any sites of potential Native American concern (e.g., rock art, vision quest structures, herb gathering areas, human burial sites, prehistoric cairns, stone circles, etc.) are identified by Veritas or BLM personnel or subcontractors within the project boundary outside the cultural resource inventory (vibe line) corridors, the Native American Tribes and BLM Rock Springs Field Office Archeologist shall be promptly notified.
2. Regardless of surface ownership, all identified sites containing prehistoric cairns or stone circles will be avoided by a distance of 300 feet or more. Regardless of surface ownership, all known sites containing rock art or unusual rock alignments such as altars or medicine wheels shall be avoided by a distance of 0.25 miles or more. All Native American burial sites shall be avoided by a distance of 1 mile or more. Exceptions to these avoidance distances may be granted by the BLM Authorized Officer, following consultation with Native American Tribal representatives. All decisions about protective or mitigative measures will be made by the Rock Springs Field Manager after completion of consultations with appropriate Native American Tribes (BLM Manual H-8160-1).

Paleontology

1. If paleontological materials are found during the project, all activities within a 100-foot radius of the site will cease immediately, and the BLM's Authorized Officer will be notified to ensure proper handling of the discovery.
2. Mitigation measures for paleontology will require: (a) avoidance of known localities, (b) worker education of the significance of fossil remains and the restriction on collection of paleontologic resources without a permit, and (c) provision for accidental discovery of fossil remains will reduce potential significant impacts.
3. The proponent is responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any vertebrate fossil objects on site. If vertebrate fossil materials are discovered, the operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations are not to resume until written authorization to proceed is issued by the Authorized Officer.
4. Within five (5) working days, the Authorized Officer will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant paleontologic resources.
5. The operator is responsible for the cost of any mitigation required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the operator will be allowed to resume operations.

Soils

1. Soil compaction will be reduced by avoiding the constant use of the same access routes. Highly erodible soils locations, particularly steep slopes, dunal areas, or drainages, should be avoided.
2. Veritas DGC will not conduct any vehicle operations during periods of saturated ground conditions when surface rutting could occur. Surface ruts deeper than 3 inches will be cause for the operations to cease. Veritas DGC's project supervisor or designated representative will be responsible for insuring that damage to soils is avoided or minimized. If it is determined by the BLM Authorized Officer that excessive surface damage has taken place, activities will be suspended until revised or additional terms and conditions are stipulated.
3. Damaged areas will be promptly stabilized by seeding with native plant species and utilizing temporary erosion control devices such as mulch and jute netting if warranted. Specific measures and locations for use will be determined during field investigations by personnel from Veritas DGC and the BLM.

Surface Water

1. No vibroseis source points are permitted within 300 feet of springs, seeps, or riparian areas (BLM H-3150-1 Handbook).
2. No vehicle traffic is allowed in wetland or riparian areas; traffic must remain on dry ground.
3. Vehicular traffic across / through dry drainage channels is limited to sloping drainage sides or to vertical banks of less than 2 feet. Crossing routes should be aligned perpendicular to the stream channel, to the extent practicable.

Waste, Hazardous Materials, Safety Issues

1. Veritas shall prepare an "Emergency Response and Contingency Plan" addressing spills and fire, and submit it to the BLM Authorized Officer for review at least two weeks prior to any project field operations.
2. Veritas will place all tanks holding bulk liquids in lined and bermed areas. Capacity of the bermed area shall be 110 percent of the largest tank. Bulk liquids contained in tanker semi-trailers shall be parked in a safe location on the staging area.
3. Veritas shall clean up all oil, diesel or hydraulic fuel spills, including removal of all contaminated soils. All spill-related materials must be hauled to a Wyoming DEQ approved disposal site. Spills resulting from ruptured pipelines or well casings shall be cleaned up immediately as directed by DEQ and the facility owner/operator.
4. Veritas shall coordinate with the nearest paramedic providers to establish Landing Zones across the project. (Contact Casper or Salt Lake for Life Flight, and Rock Springs, Wamsutter or Rawlins for ambulance service.) These zones will be used in case of serious injury to workers needing immediate evacuation.
5. Hazardous materials, other than those identified in Veritas DGC's Plan of Operations, will not be stored for any length of time on BLM administered land. Additionally, no hazardous waste will be disposed of on federal land. The term hazardous material means:

- 1) any substance, pollutant, or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA,
 - 2) any hazardous waste as defined in the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, and 3) any nuclear or nuclear byproduct as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.
6. Veritas DGC will be responsible for clean up of any diesel or hydraulic fluid spills, including contaminated soils. All spill-related material shall be hauled to a Wyoming Department of Environmental Quality (DEQ) approved disposal site.

Wilderness

1. The Sand Dunes WSA will not be driven over or impacted. There will not be any activity within the WSA. The road which defines the WSA will be used for access but no geophones will be placed within it.

Geology/Fluid Minerals

1. Vibroseis source points shall be located a minimum of 300 feet from all oil and gas wells and standing structures, unless written permission to encroach closer has been given by the owner/operator (BLM H-3150-1 Handbook).

Livestock / Range

1. Veritas shall make every effort to avoid disturbing or altering fences. Gates shall be used when possible. Gates must be closed immediately after passing through them. If a fence must be crossed, it shall be let down, crossed, and immediately put back up. The wires shall be stretched to the original tension from the nearest brace or gate panel. If the fence is to be cut, a brace panel will be constructed on either side of the cut before the cut is made. The cut will be repaired with wire of the same type wire with no new gates established.
2. Vibroseis source points shall be located a minimum of 300 feet from all water wells and reservoirs (BLM H-3150-1 Handbook Illustration 10, p.1).
3. Any and all facilities damaged, destroyed or removed in connection with this geophysical exploration operation shall be immediately restored to original condition or replaced with a similar facility or equal or better condition.

Vegetation

1. Disturbance of vegetation will be kept to a minimum by limiting the number of times the vehicles travel over their designated routes. Steep slopes, dunal areas, or ephemeral drainage areas will be avoided where possible. If required, damaged areas will be seeded with native plant species recommended by the BLM Authorized Officer.

Noxious / Invasive Plants

1. To prevent the introduction of new weeds, Veritas shall thoroughly power-wash all field vehicles (buggy vibes, pick-ups, ATVs, etc.) before transporting them to the project area.

2. Veritas shall reclaim and reseed, according to BLM standard seed mix, any areas where their operations have caused surface rutting or have otherwise removed surface vegetation, as directed by the Authorized Officer.

Wild Horses

1. Veritas will avoid aerial operations during the peak foaling period of April 1 to July 15.

Recreation

1. To prevent resource damage, off road vehicles (ORV)/all terrain vehicle (ATV) is limited to:
 - Project-related necessary tasks; recreational use is not permitted.
 - The single pass (no overlapping tire tracks) of ATVs in conformance with BLM Manual 3150, part 3.1.B.5.
 - Slopes less than 25 percent (15 degrees).
 - Dry ground surfaces so that rutting in excess of three inches will not occur.

Wildlife/Special Status Species

1. No activity is allowed 0.75 mile (1.0 mile for ferruginous hawks and eagles) of an active raptor nest during the mating/nesting season (March 1 through July 31) unless approved by BLM¹.
2. No activity is allowed within greater sage-grouse nesting habitat (suitable habitat within 2.0 mile of an active lek) during the breeding and nesting season of March 1 - June 30, or on important wintering areas as determined by BLM.
3. If a black-footed ferret or its sign is found, all action potentially affecting the colony or complex shall cease, and any further action will be subject to U.S. Fish and Wildlife Service guidance and/or restrictions (formal consultation).
4. March 1 through June 30, no project-related vehicles are permitted off-road within a two-mile radius of active greater sage grouse leks. Written exception to this stipulation may be granted by the BLM Authorized Officer.

Project Cleanup

1. As directed by the Authorized Officer, Veritas DGC shall be responsible to clean up the lines used for the geophysical operations on public lands managed by BLM. All trash, flagging, lath, etc. will be removed and disposed of in an authorized location.

¹ Due to limits on the available time of qualified personnel, the unpredictability of wildlife, and future weather conditions, requests for exceptions to impending wildlife stipulations will only be considered in the event of extraordinary and unavoidable occurrences over which the company has little or no control. Additionally, projects must be initiated in a time frame which would allow for completion of the project prior to the beginning date of wildlife protection stipulations.

2. No open burning of garbage or refuse is allowed in association with seismic activities.

Compliance

1. Operations can be suspended during any portion of the project when in the judgment of the BLM Authorized Officer, Veritas DGC or any contractor hired by Veritas DGC have not complied with any terms or conditions described in the approved NOI and attached Special Terms and Conditions.

Accepted by _____ Date _____
Veritas DGC Land

APPENDIX B

The BLM received 7 comment letters during public scoping. Below you will find public comments and BLM's response to the comment. BLM responses are in italics.

Biodiversity Conservation Alliance

We neglected to mention the importance of proposed wilderness lands and the effects of the Hay Reservoir seismic project on these lands. Although we recognize that the project area has specifically been designed by BLM to avoid all surface disturbances to the Red Lake WSA, we are concerned that seismograph exploration may be allowed to proceed on citizens' proposed wilderness lands outside the WSA, lands which total an additional 10,500 acres. These lands include Red Lake itself and parts of the Luman Rim, as well as unprotected wilderness-quality stretches of the Killpecker Sand Dunes. The wilderness qualities of this citizens' proposed wilderness have been documented in the 1994 submission "Wilderness at Risk," and as yet BLM has made no effort to evaluate wilderness qualities on these lands or grant them the protection they deserve under Section 202 of FLPMA. In the interest of avoiding confusion, we have attached a map of the citizens' proposed wilderness as it currently stands.

Thank you for your comments. Procedures for considering wilderness proposals were eliminated via Instruction Memorandum 2003-195. No actions are proposed within the Red Lake WSA. Effects to WSA users have been considered in the analysis.

Petroleum Association of Wyoming

The Petroleum Association of Wyoming (PAW) would like to thank BLM for the opportunity to comment on the referenced document. PAW is Wyoming's largest and oldest oil and gas trade association, the members of which account for over ninety percent of the natural gas and over eighty percent of the crude oil produced in the State. This project will directly affect members of PAW.

PAW has the following comments regarding the Notice of Intent for the above referenced project:

1. The Applicant is bound by the Resource Management Plan (RMP), which allows for geophysical activity in the proposed project area. The activity will create minimal surface disturbance and the mandatory mitigation in effect through the RMP's is more than adequate to protect resources for this proposed action and additional concerns can and will be analyzed in the Environmental Assessment (EA) and the site-specific analysis. Currently there is nothing present to indicate that an Environmental Impact Statement is necessary; therefore, the EA should be expedited for this environmentally sound project.

2. The detailed image of the subsurface that 3-D seismic, allows the operator to target the most promising areas while avoiding areas that would otherwise require exploratory drilling. This procedure is much less intrusive than exploratory drilling, which must be analyzed as an alternative to seismic activity. This technology is a short term, temporary disturbance and it does not require the construction of surface facilities or roads. The impact to vegetation and soils is temporary and will be eliminated after one growing season. The short term and dispersed nature of 3-D seismic and its minimal need for vehicles will not create a significant disturbance to other resources (i.e. wildlife, cultural, etc.) and the EA should be prepared and the project approved without delay.

3. An analysis should be included in the EA addressing socio-economics and the positive effects the project will have on the surrounding communities. PAW recognizes that this proposed action may not stimulate tremendous growth in the economy immediately, but the residents of Wyoming and the participating counties will benefit by directly creating new jobs and additional revenue particularly if further development is determined to be economically feasible after the project is completed.

4. Seismic technology provides the necessary information that can significantly reduce the number of unsuccessful exploration and development of wells drilled; thereby, significantly minimizing surface disturbance. Geophysical activity is consistent with the President's National Energy Policy and the Secretary of Interior's "4C's" philosophy to promote conservation practices with energy development and should be encouraged by BLM. BLM must consider and provide adequate access to areas in order to obtain the valuable information that seismic activity provides.

Thank you for your comments; they have been considered in the analysis.

Shoeshone-Bannock Tribes

The Tribes are concerned about how this project could affect cultural properties in the vicinity. If a cultural resource survey has been done on the project area, this office would like to request a copy of the report along with a map of the project area. The project lies within the aboriginal use areas of the Shoeshone and Bannock people. Another concern is whether or not the project would affect traditional plants and wildlife, particularly burrowing animals.

A plan to address inadvertent discoveries need to be developed as well as government-to-government consultation. Keep in mind that federal statutes such as NAGPRA, State Burial Law, ARPA, etc. may come into effect should there be a discovery.

The purpose of this letter is to provide technical input and not intended as government-to-government consultation.

Thank you for your comments; they have been considered in the analysis. Once the cultural inventory is complete, the BLM will consult with your Tribes. Additional stipulations could be required based on consultation.

State of Wyoming, Office of Federal Land Policy

The Office of Federal Land Policy has reviewed the referenced scoping statement on behalf of the State of Wyoming. This Office also distributed the referenced document to affected state agencies for their review, in accordance with State Clearinghouse procedures. Attached are comments from the Wyoming Game and Fish Department and the Office of State Lands and Investments. While the State defers to its agencies' technical expertise in developing the State's position, the responsibility to articulate balanced official, unified State policies and positions lies with the Governor or the Office of Federal Land Policy.

We ask that the terrestrial and aquatic concerns, provided by the Game and Fish Department in their attached comment letter, receive your favorable consideration. Please continue to provide this office with either three hard copies or electronic copy (submit to OFLP@state.wy.us) of continued information for review and distribution to interested agencies. Thank you for the opportunity to comment

Thank you for your comments.

Office of State Lands and Investments

The Office of State Lands and Investments has reviewed the referenced scoping statement. Our comments regarding the proposed action are specific to this agency's statutory mission within State government which is to provide timely, accurate and cost effective service to the Board of Land Commissioners, the State Loan and Investment Board, policymakers and the citizens of Wyoming to facilitate wise and reasonably analytical decision making that will maximize the State's assets and resources in accordance with mandated authorities. In that regard, these comments are meant to, in association with all other agency comments, assist in defining the Official State Position. These comments defer to and are subordinate to the Official State Position.

Although at this time our office has no objection to the proposed action, we would like to point out that in accordance with Chapter 4, Section 13 of the rules of the Board of Land Commissioners, the Board of Land Commissioners require that Veritas DOC Land, Inc. secure the necessary authority prior to conducting operations on any state land within the designated area.

Thank you for your comments. Veritas will obtain all state and local permits necessary to conduct geophysical activities over state land.

Wyoming Game and Fish Department

These comments regarding the scoping statement for the Veritas DGC Land Inc., to conduct the Hay Reservoir 3D geophysical operation have been approved by the Director and are specific to this agency's statutory mission within State government which is "Conserving Wildlife, Serving People". With that regard, these comments are meant to, in association with all other agency comments, assist in defining the Official State Position. These comments defer to and are subordinate to the Official State Position.

Terrestrial Considerations:

The proposal is for seismic exploration in the vicinity of Hay Reservoir, northwest of Wamsutter. The proposed geophysical operation would consist of 3D surveys conducted using vibroseis buggies, ATVs and helicopters, encompassing roughly 210 square miles. Most of the project area is BLM-administered lands. The project area provides a variety of seasonal habitats for terrestrial wildlife. Big game habitats include spring/summer/fall and winter/yearlong range for the Red Desert antelope herd (Hunt Area 60).

The project boundary has been modified. The size of the project has increased slightly and has been analyzed.

The area provides nesting and brood-rearing habitats for sage grouse. There are at least eleven documented sage grouse strutting grounds potentially affected by this proposal, two of which, East Luman and Horseshoe Bend, are omitted from the project map provided by the BLM. This map also identifies one lek, near Bush Creek Reservoir, that is not in our records.

We would appreciate the BLM or the company providing the documentation they have for this lek. Leks that are known to occur in the project area by our records are:

Lek	Section	Township	Range
Horseshoe Bend	9	22	96

East Luman	6	23	96
Bastard Butte	10	25	97
Scotty Lake	17	26	97
Basin Well	16	24	98
Luman Rim	25	24	98
Buffalo Hump Lake	8	24	98
Buffalo Hump South	9	24	98
Bear Creek	11	25	98
Buffalo Hump West	34	25	98
West Kinch McKinney	34	26	98

The area also provides seasonal habitats for numerous species of upland game, small game, furbearers, raptors, waterfowl, predators, nongame mammals, neotropical songbirds, and resident songbirds. Much of the project area is nesting and brood-rearing habitat for mountain plovers. Since large acreages of important wildlife habitat will potentially be affected by this project, we request the Bureau of Land Management to consider and evaluate the following in the environmental document.

Buggy vibrators should be used only in specific locations where steep terrain and ground cover prohibit the use of vibrator trucks. If used, drills should be transported using a helicopter, as well as all recording cables and seismophones. Unless following existing trails, recording crews should set cables and seismophones using all-terrain vehicles and on foot. Existing roads and trails should be used where possible and off-highway vehicle operations should employ a staggered spread pattern in order to avoid excessive compaction of vegetation and soils. Vibrators should be equipped with all-terrain, low-pressure rubber tires to minimize soil impressions and impacts.

Timing and location of the proposed seismic work may conflict with important wildlife during certain times of year. Seismic exploration within all crucial habitats should be evaluated for the following seasonal restrictions:

- a.) Pronghorn, mule deer, and elk crucial winter ranges: November 15 -April 30.
- b.) Elk winter range: November 15 -April 30.
- c.) Elk parturition areas: May 1 -June 15.
- d.) Raptor nest sites: February 1 -July 31.
- e.) Sage grouse leks and two-mile buffer: March 1 -May 20.

No surface disturbance should occur within 1/4-mile of sage grouse leks.

If any activities are to occur during breeding and brood-rearing periods for mountain plovers (roughly 10 April- July), steps should be implemented according to USFWS guidelines to prevent the disturbance of breeding activities or loss of eggs or young.

To minimize conflicts with recreationists, the company should consider suspending operations during the big game rifle seasons. In this area, big game seasons normally run from mid-September through October.

Winter helicopter flights should avoid all occupied crucial habitats to minimize harassment of wildlife.

Existing roads and trails should be used to access seismic lines to the extent possible. All off-road travel should be avoided during wet or muddy conditions.

Drill holes should be reclaimed promptly, re-vegetated with native plants, and all cuttings removed from the surface.

Firearms should be prohibited on all job sites during exploration activities.

Thank you for your comments; they have been considered in the attached analysis.

Aquatic Considerations:

The Bureau of Land Management should consider actions necessary to minimize erosion potential throughout the project area. The soils in this part of the state are fairly fragile and healing takes a commensurately long time.

Your comments have been considered in the attached analysis.

Fish and Wildlife Service

In accordance with section 7(c) of the Endangered Species Act of 1973, as amended (Act), my staff has determined that the following threatened or endangered species, or species proposed for listing under the Act, may be present in the project area.

Listed and Proposed for Listing Species	Status	Expected Occurrence
Black-footed ferret (<i>Mustela nigripes</i>)	Endangered	Endangered Potential resident in prairie dog (<i>Cynomys</i> sp.) colonies.
Bald eagle. (<i>Haliaeetus leucocephalus</i>)	Threatened	Nesting. Winter resident. Migrant
Mountain plover(<i>Charadrius montanus</i>)	Proposed	Grasslands statewide
Blowout Penstemon (<i>Penstemon haydenii</i>)	Endangered	Sand Dunes south of Ferris Mountain
Ute ladies'-tresses(<i>Spiranthes diluvialis</i>)	Threatened	Seasonally moist soils and wet meadows of drainages below 7000 feet elevation.
Platte River Species	Endangered	Downstream riverine habitat of the Platte River in Nebraska

Black footed ferret

Black-footed ferret may be affected if prairie dog colonies are impacted. If white-tailed prairie dog (*Cynomys leucurus*) colonies or complexes greater than 200 acres will be disturbed, surveys for ferrets should be conducted even if only a portion of the colony or complex will be disturbed. A white-tailed prairie dog town or complex consists of two or more neighboring prairie dog towns each less than 7 kilometers (4.34 miles) from each other (Black-footed Ferret Survey Guidelines, USFWS, 1989). If a field check indicates that prairie dog towns may be affected, you should contact this office for guidance on ferret surveys.

Bald eagle

Work that may affect these birds, their young, eggs, or nests should be coordinated with our office before any actions are taken in order to determine if consultation under the Act may be necessary. The U.S. Fish and Wildlife Service (Service) recommends the project area be surveyed for nesting eagles and roost areas. If any active nests or roost areas are identified within 1 mile of the proposed project, we recommend avoiding work in the area between February 15 and August 15 and avoiding impacts to any nests and roost areas. If timing and/or location of the work cannot be modified to avoid possible impacts you should contact this office to discuss consultation requirements pursuant to the Act.

Mountain plover

Mountain plover breeding and wintering habitats are known to include grasslands, mixed grassland areas and short-grass prairie, shrub-steppe, plains, alkali flats, agricultural lands, cultivated lands, sod farms, and prairie dog towns. Plovers may nest on sites where vegetation is sparse or absent, or near closely cropped areas, manure piles or rocky areas. Mountain plovers are rarely found near water and show a preference for previously disturbed areas or modified habitat. They may be found on heavily grazed pastures throughout their breeding range and may selectively nest in or near prairie dog towns.

As this project area provides suitable habitat for nesting plovers, surveys should be conducted prior to implementing the proposed project. Additionally, nesting areas should be avoided to minimize impact to plovers in the project area. While the Service believes that plover surveys, avoidance of nesting and brood rearing areas, and timing restrictions (avoidance of important areas during nesting) will lessen the chance of direct impacts to and mortality of individual mountain plovers in the area, these restrictions do nothing to mitigate indirect effects, including changes in habitat suitability and habitat loss. Surveys are, however, a necessary starting point.

Ute ladies'-tresses

Ute ladies'-tresses is a perennial, terrestrial orchid endemic to moist soils near wetland meadows, springs, lakes, and perennial streams. It occurs generally in alluvial substrates along riparian edges, gravel bars, old oxbows, and wet meadows at elevations from 4,200 to 7,000 feet. The orchid colonizes early successional riparian habitats such as point bars, sand bars, and low lying gravelly, sandy, or cobbly edges, persisting in those areas where the hydrology provides continual dampness in the root zone through the growing season. Ute ladies'-tresses seems generally intolerant of shade and is found primarily in open grass and forb-dominated sites where vegetation is relatively open and not dense or overgrown. The plants usually occur as small, scattered groups. Surveys conducted at other times of the year are not reliable and are therefore not acceptable to the Service for purposes of clearance under section 7 of the Act. Surveys should be conducted by knowledgeable botanists trained in conducting rare plant surveys. The Service does not maintain a list of "qualified" surveyors but can refer those wishing to become familiar with the orchid to experts who can provide training/services.

Platte River Species

Water depletions to the Platte River system may affect the endangered whooping crane (*Grus americana*), endangered interior least tern (*Sterna antillarum*), threatened piping plover (*Charadrius melodus*), and endangered pallid sturgeon (*Scaphirhynchus albus*), the threatened bald eagle (*Haliaeetus leucocephalus*), the endangered Eskimo curlew (*Numenius borealis*) and threatened western prairie fringed orchid (*Platanthera praeclara*). Depletions include evaporative losses and/or consumptive use, often characterized as diversions from the Platte River or its tributaries less return flows. Project elements that could be associated with depletions to the Platte River system include, but are not limited to, water used for dust suppression or diversion structures. Any actions that may result in a water depletion to the Platte River system should be

identified. The document should also include an estimate of the amount and timing (by month) of average annual water depletion (both existing and new depletions), and describe methods of arriving at such estimates.

Consultation

Section 7(c) of the Act requires that a biological assessment be prepared for any Federal action that is a major construction activity to determine the effects of the proposed action on listed and proposed species. If a biological assessment is not required (i.e., all other actions), the Bureau of Land Management (Bureau) is responsible for review of proposed activities to determine whether listed species will be affected. We would appreciate the opportunity to review any such determination document. If it is determined that the proposed activities may affect a listed species, you should contact this office to discuss consultation requirements. If it is determined that any Federal agency program or project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. Alternatively, informal consultation can be continued so we can work together to determine how the project could be modified to reduce impacts to listed species to the "not likely to adversely affect" threshold. If it is concluded that the project "is not likely to adversely affect" listed species, we should be asked to review the assessment and concur with the determination of not likely to adversely affect.

Section 7(d) of the Act requires that the Bureau and permit or license applicant shall not make any irreversible or irretrievable commitment of resources which would preclude the formulation of reasonable and prudent alternatives until consultation on listed species is completed.

Regarding species proposed for listing, the Bureau agencies must determine whether any of their proposed activities are likely to jeopardize the continued existence of the species. If jeopardy is likely, that agency must confer with the Fish and Wildlife Service.

We will work with your agency in the section 7 consultation process. The analysis of project impacts must assess direct impacts of the project, as well as those impacts that are interrelated to or interdependent with the proposed action. Impacts to listed species on non-Federal lands must be evaluated along with such impacts on Federal lands. Any measures that are ultimately required to avoid or reduce impacts to listed species will apply to Federal as well as non-Federal lands.

Wetlands/Riparian Areas

The Service recommends measures be taken to avoid any wetland losses in accordance with Section 404 of the Clean Water Act, Executive Order 11990 (wetland protection) and Executive Order 11988 (floodplain management) as well as the goal of "no net loss of wetlands." If wetlands may be destroyed or degraded by the proposed action, those (wetlands) in the project area should be inventoried and fully described in terms of functions and values. Acreage of wetlands, by type, should be disclosed and specific actions outlined to minimize impacts and compensate for all unavoidable wetland impacts. All riparian crossings should be conducted at a right angles to the area to minimize resource impacts from vibroseis buggies and other associated equipment.

Riparian, or streamside areas and ephemeral draws are a valuable natural resource and impacts to these areas should be avoided whenever possible. Riparian areas are the single most productive wildlife habitat type in North America. They support a greater variety of wildlife than any other habitat. Riparian vegetation plays an important role in protecting streams, reducing erosion and sedimentation as well as improving water quality, maintaining the water table, controlling flooding, and providing shade and cover. In view of their importance and relative scarcity,

impacts to riparian areas should be avoided. Any potential, unavoidable encroachment into these areas should be minimized and quantitatively assessed in terms of functions and values, areas and vegetation type lost, potential effects on wildlife, and streams (bank stability and water quality). Measures to compensate for unavoidable losses of riparian areas should be developed and implemented as part of the project.

Plans for mitigating unavoidable impacts to wetland and riparian areas should include mitigation goals and objectives, methodologies, time frames for implementation, success criteria, and monitoring to determine if the mitigation is successful. The mitigation plan should also include a contingency plan to be implemented should the mitigation not be successful.

Migratory Birds/Raptor Surveys

Work that could lead to the take of a migratory bird or eagle, their young, eggs, or nests (for example, if you are going to explore in the vicinity of a nest), should be coordinated with our office before any actions are taken. Removal or destruction of such nests, or causing abandonment of a nest could constitute a violation of the Migratory Bird Treaty Act, 16 U.S.C. 703. To avoid direct take of ground nesting raptors (e.g. ferruginous hawk), and indirect take via nest disturbance of all raptor species, we recommend conducting surveys for raptor nests and roost areas if work will take place during the nesting season. Removal of nests or nest trees is prohibited. Permits for nest manipulation including removal or relocation may, under certain circumstances, be issued for specific types of projects. If nest manipulation is proposed for this project, the project proponent should contact the Services' migratory Bird Office in Denver at 303-236-8171 to see if a permit can be issued for this project. No nest manipulation is allowed without a permit. If a permit cannot be issued, the project may need to be modified to ensure take of a migratory bird or eagle, their young, eggs or nest will not occur. Timing is a significant consideration and you need to allow for this in your project planning.

Other Wildlife Resources

The Wyoming Game and Fish Department has informed us that the project area is an important greater sage-grouse nesting and brood rearing area. Sage grouse are declining throughout their range, and concern for this species has led us to believe we will receive a listing petition for listing sage grouse pursuant to the Endangered Species Act in the near future. The cause of sage grouse decline is not known, and may be a combination of several factors which affect habitat and reproductive abilities. However, anecdotal information from several sources in Wyoming, suggests that sage grouse populations are negatively affected by the activities associated with oil and gas development, even when mitigative measures are implemented. We encourage the Bureau to take all necessary measures allowable to protect sage grouse in the project area to ensure this project does not exacerbate factors contributing to sage grouse decline and thus give support to a listing petition.

Please keep this office informed of any developments or decisions concerning this project. If you have any questions please contact Pat Deibert of my staff at the letterhead address or phone (307) 772-2374, extension 26.

Thank you for your comments; they have been considered in the analysis.