



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
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Billings, Montana 59101-4669  
<http://www.blm.gov/mt>

In Reply Refer To:

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December 27, 2010

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

## DECISION

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Protest Dismissed

## I. INTRODUCTION

On October 22, 2010, a Lease Sale Notice for the December 9, 2010, Oil and Gas Lease Sale was posted, which initiated a 30-day protest period. Eight environmental assessments (EAs) and the Montana, North Dakota and South Dakota Climate Change Supplementary Information Report (Climate Change SIR), as updated after a 30-day public comment period, were made available at the same time as the Lease Sale Notice.

In a letter submitted to the Bureau of Land Management (BLM) dated November 8, 2010, WildEarth Guardians and Montana Environmental Information Center requested that the BLM suspend the December 9, 2010 competitive oil and gas lease sale, “. . . unless and until all protests have been fully resolved . . . “. By letter to the BLM dated November 23, 2010, the Western Environmental Law Center (WELC) submitted a timely protest (Enclosure 1) to the inclusion of all 223 parcels in the lease sale on behalf of the Montana Environmental Information Center, Earthworks’ Oil and Gas Accountability Project, and WildEarth Guardians (herein referred to as WELC). On December 1, 2010, the BLM received a faxed copy of a letter from the WELC (Enclosure 2) supplementing their protest.

A competitive oil and gas lease sale was held on December 9, 2010. Based on the analysis and recommendations from the field managers, a total of 222 parcels were offered, with the proposed stipulations identified in the respective EAs (note that Parcel Number 12-10-27 was deferred before the sale). Of the 222 parcels offered, 88 parcels are located within the boundaries of the Dakota Prairie Grasslands. These 88 parcels were offered based on recommendations from the

US Forest Service, after completion of required National Environmental Policies Act (NEPA) review and compliance.

Lease Parcels 12-10-01 through 12-10-26; 12-1-28 through 12-10-38; 12-10-92 through 12-10-120; and 12-10-130 through 12-10-135 did not receive bids at the sale. Parcels not receiving bids at the sale were made available for noncompetitive filing on December 10, 2010. Noncompetitive offers were received on fifteen parcels (12-10-01, 12-10-03, 12-10-07, 12-10-18, 12-10-19, 12-10-100, 12-10-101, 12-10-103 through 12-10-107, 12-10-09, 12-10-111, and 12-10-112). The remaining 57 parcels are available for noncompetitive lease offers through December 9, 2012.

## **II. BACKGROUND**

In March 2010, a settlement agreement was approved between the BLM and the WELC, et al, whereby the BLM suspended the 61 oil and gas leases (issued in 2008) covered by the suit until the BLM prepared additional environmental analysis. While not part of the settlement agreement, the BLM subsequently delayed oil and gas lease sales until additional environmental documentation could be completed.

On May 25, 2010, the Montana/Dakotas BLM initiated a 15-day public scoping period for eight oil and gas leasing EAs. On August 12, 2010, the Montana/Dakotas BLM released eight EAs for a 30-day public comment period. The EAs assessed the BLM's decisions concerning oil and gas leases that were issued in 2008 and subsequently suspended under the terms of a settlement agreement in March 2010. The eight EAs also assess the BLM's decisions to offer parcels for leasing for lease sales that were delayed in 2010. The public comment period ended on September 13, 2010. An SIR on Climate Change for Montana, North Dakota and South Dakota was also prepared, which included very detailed greenhouse gas (GHG) emissions inventories, calculations and analysis of potential future oil and gas development. The Climate Change SIR and eight EAs were prepared to consider the proposed action, and address issues raised by WELC.

The BLM's decision to offer 222 parcels at the December 9, 2010, lease sale fully complies with NEPA, the Federal Land Policy and Management Act (FLPMA), the Mineral Leasing Act (MLA), the Clean Air Act (CAA), and with existing BLM policies and regulations. The BLM completed a careful and reasonable review of relevant environmental concerns and the oil and gas leasing EAs appropriately incorporated by reference (40 CFR 1502.21) the Climate Change SIR. The WELC has not demonstrated any clear error of fact, or that the BLM's decision is in violation of any laws; nor has WELC demonstrated any deficiencies in the notice of lease sale or supporting documentation. For these reasons, and those set forth in Section III below, the BLM denies this protest and all relief requested.

## **III. PROTEST ANALYSIS**

**Protest Summary:** The WELC submitted a timely protest (November 23, 2010) to the inclusion of all 223 parcels in the lease sale (Enclosure 1). The protest states at the outset that it is their hope “that BLM take meaningful action to address climate change concerns implicated by BLM’s sale and issuance of oil and gas leases for Montana and the Dakotas.” The protest further notes that the WELC comments of June 10, 2010, expressed the hope that the BLM “will exercise leadership on the very critical issue of climate change” and that the BLM’s leasing decisions presented “an essential opportunity to prevent waste and inefficiencies in the production of federal oil and gas resources and to address the cumulative impacts of large-scale oil and gas development and climate change to our environment.” (At page 1).

The introduction to the protest ends by stating that the BLM cannot lawfully proceed with this lease sale and must, instead, cancel the lease sale and initiate preparation of an Environmental Impact Statement (EIS) and amendments or revisions to the BLM’s land use plans to justify further leasing and any lifting of the suspension of the leases imposed pursuant to our March 2010 court-ordered settlement agreement. Barring that action, the protestors will continue to press their rights and protect their interests by enforcing Federal law against BLM transgressions.

On December 1, 2010, the BLM received a faxed copy of a letter from the WELC (Enclosure 2) supplementing their protest. This supplemental information incorporates a recent Governmental Accountability (GAO) Report titled Federal Oil and Gas Leases: Opportunities Exist to Capture Vented and Flared Natural Gas, Which Would Increase Royalty Payments and Reduce Greenhouse Gases (GAO 11-34). The WELC contends that this report confirms the protest providing further evidence that the BLM should not proceed with the December 9, 2010 lease sale without first taking a proper hard look at GHG pollution from development of the oil and gas leases, and without first considering alternatives to reduce that GHG pollution by including GHG reduction stipulations in the leases.

The GAO report notes that the BLM intends to update its guidance by the second quarter of 2012. In the opinion of the WELC, this does not obviate the BLM’s immediate responsibility to comply with Federal law, as outlined in the protest, to ensure that GHG pollution and waste from oil and gas development is addressed prior to the sale and issuance of oil and gas leases. In the opinion of the WELC, near term action on specific, concrete, on-the-ground oil and gas leasing decisions could be used to improve broader regulatory and policy initiatives.

## **Protest Contentions and BLM Response**

### **A. BLM Failed to Consider Reasonable Alternatives to Reduce GHG Pollution and Protect the Environment in the Face of a Deteriorating Climate**

**Protest Contention:** Part A of the WELC’s protest states that they

“asked BLM to consider two types of alternatives. First, alternatives to reduce GHG emissions from oil & gas development. And, second, alternatives to protect and restore ecological resiliency as a way to best withstand climate change impacts.” The protest

states that the BLM has considered neither alternative. It also states “this is unacceptable, eviscerating the "heart" of the environmental review process. 40 C.F.R. § 1502.14.” (At page 5)

The protest goes on to say “BLM, fundamentally, must consider reasonable alternatives at the point it still retains its full authority to prevent or, as appropriate, abate GHG pollution and protect the environment from climate change impacts through whatever means are necessary — not just whatever means are consistent with the rights conveyed by executed leases.” (At page 6)

Finally the protest contends

“BLM’s promise of site-specific mitigation differs considerably from the Climate Hawks’<sup>1</sup> proposed alternatives regarding the problem of GHG pollution. BLM’s decision to approach the problem through site-specific mitigation has not, however, been vetted and considered through alternatives analysis, whether in the Leasing EAs or in the agency’s land use plans and accompanying NEPA analyses. Instead, BLM has simply made the decision, without providing a basis or explanation for why site-specific mitigation is appropriate, necessary, compliant with the law, and a better way of dealing with the problem than the ways proposed by the Climate Hawks.” (At page 6).

**BLM RESPONSE:** The BLM considered an adequate range of alternatives to address the Purpose and Need of the eight Oil and Gas Leasing EAs (herein after referred to as Oil and Gas Leasing EAs). The Oil and Gas Leasing EAs address two alternatives in response to the Purpose and Need. As summarized from the Oil and Gas Leasing EAs (Section 1.2):

“...the purpose of offering parcels for competitive oil and gas leasing is to allow private individuals or companies to explore for and develop oil and gas resources for sale on public markets. This action is needed to help meet the energy needs of the people of the United States. By conducting lease sales, the BLM provides for the potential increase of energy reserves for the U.S., a steady source of significant income, and at the same time meets the requirement identified in the Energy Policy Act, Sec. 362(2), Federal Oil and Gas Leasing Reform Act of 1987, and the Mineral Leasing Act of 1920, Sec. 17. The decision to be made is whether to sell oil and gas leases on the parcels in question, and, if so, what stipulations would be identified as required for specific parcels at the time of lease sale. For leased parcels currently under suspension, the decision to be made is whether the conditions under which they have been leased are still valid and in conformance with the land use plan and whether the lease suspensions should be lifted....”

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<sup>1</sup> Montana Environmental Information Center, Earthworks’ Oil and Gas Accountability Project, and WildEarth Guardians (“Climate Hawks”), as identified in the November 23, 2010 protest. Direct quotes from the protest include the name “Climate Hawks” verbatim. The Western Environmental Law Center filed the protest on behalf of all the protesting parties and for clarity the protest herein refers to the protesting parties collectively as WELC.

The No Action Alternative (Alternative A) would exclude offering lease parcels; surface management would remain the same and on-going oil and gas development would continue on surrounding federal, private and state leases.

The Proposed Action Alternative (Alternative B) would offer and issue lease parcels with identified stipulations (consistent with the respective land use level planning decisions). The Oil and Gas Leasing EAs appropriately identify mitigation (40 CFR 1508.20) at this (leasing) stage analysis (Oil and Gas Leasing EAs at Chapter 4). Identifying a range of mitigation practices at the leasing stage (for any resource, but specifically mitigation for GHG emissions reductions to address the WELC's contention(s)), allows the BLM to be adaptive to changes in technology and/or changes in regulation/policy.

The Proposed Actions also allows for implementation-level adaptability, providing for management guidance for changing conditions to still meet management goals and objectives as identified in land-use level plans/decisions, (Excerpt from Miles City EA at Section 2.2):

“Standard operating procedures, best management practices (BMPs), and required conditions of approval (COAs) and the application of lease stipulations change over time to meet overall RMP objectives. In some cases, new lease stipulations may need to be developed, and these types of changes may require an RMP amendment. There is no relief from meeting RMP objectives if local conditions were to become drier and hotter during the life of the RMP. In this situation, management practices might need to be modified to continue meeting overall RMP management objectives. An example of a climate-related modification is the imposition of additional COAs to reduce surface disturbance and implement more aggressive dust treatment measures. Both actions reduce fugitive dust, which would otherwise be exacerbated by the increasingly arid conditions that could be associated with climate change.”

In addition to Alternative A and Alternative B, several Oil and Gas Leasing EAs also include an “Alternative Considered but Dismissed from Detailed Study” in which the BLM considered *all* proposed (expressions of interest) oil and gas leases with stipulations (consistent with land-use plan decisions) for issuance. However, based on the BLM staff specialists' preliminary analysis, some lease parcels required additional study/review and were recommended to be deferred from this lease sale (in the BLM proposed action/preferred alternative).

The BLM considered GHG emissions-reducing technologies and practices recommended by the WELC, and appropriately identified these practices as mitigation to reduce estimated, potential GHG emissions that may occur from the proposed action. The Oil and Gas Leasing EAs (and Climate Change SIR, Section 6.0) identify mitigation measures to reduce GHG emissions should techniques and practices be appropriate at the development stage. Mitigation identified in the analysis adequately addresses the resource concerns (Miles City Oil and Gas Leasing EA at Section 4.2.2 and 4.2.2.2):

...“While it is not possible to predict effects on climate change of potential GHG emissions discussed above in the event of lease parcel development for alternatives considered in this EA, the act of leasing does not produce any GHG emissions in and of itself. Releases of GHGs would occur at the exploration/development stage...”

“...Measures may also be required as COAs [conditions of approval] on permits by either the BLM or the applicable state air quality regulatory agency. More specific to reducing GHG emissions, Section 6 of the Climate Change SIR identifies and describes in detail commonly used technologies to reduce methane emissions from natural gas, coal bed natural gas, and oil production operations. Technologies...summarized below...display common methane emission technologies reported under the USEPA [United States Environmental Protection Agency] Natural Gas STAR Program and associated emission reduction, cost, maintenance and payback data.”

Further, in response to a specific comment regarding the ‘effectiveness’ of GHG emissions reduction mitigation (as identified in the Oil and Gas Leasing EAs), additional analysis was prepared in an effort to disclose potential future GHG emissions reductions that might be feasible. (Miles City Oil and Gas Leasing EA at Section 4.2.2.2):

...” For emissions sources subject to BLM (federal) jurisdiction, the estimated emissions reduction represent approximately 51 percent reduction in total GHG emissions compared to the estimated Miles City FO federal GHG emissions inventory...The emissions reductions technologies and practices are identified as mitigation measures that could be imposed during development. (Note: except for the light-duty vehicle GHG emission standards, no federal or state regulations mandate these GHG emissions reductions).”

Until such a time as proposals for development are actually submitted for each lease parcel, potential development of the lease parcel(s) is far from definite. While identified as mitigation in the Oil and Gas Leasing EAs, GHG emissions reduction practices could be applied through COAs, should subsequent development of the lease be proposed. Mitigation considers site-specific conditions in order to be adaptive and responsive to changing technology and/or emissions reductions practices, allowing the BLM to be consistent with the goals and objectives identified in larger-scale action plans, as well as adaptive to changes in state and federal regulations and BLM policies.

Finally, an alternative to “protect and restore ecological resiliency as a way to best withstand climate change impacts” does not meet the defined Purpose and Need (40 CFR 1502.13) of the Oil and Gas Leasing EAs. However, the Purpose and Need of the Oil and Gas Leasing EAs do meet the intended management goals, objectives and specific management actions as identified in the respective land-use plan decisions (Chapter 1, Plan Conformance section of the Oil and Gas Leasing EAs).

The Oil and Gas Leasing EAs appropriately tier from land-use level plans and other associated NEPA analyses (40 CFR 1502.21), whereby a reasonable range of alternatives, at the landscape scale, identify overall management goals and objectives for resources and resource uses. These plans also identify specific allocations of resource uses and assess the impacts of those allocations and management actions to the environment, and disclose that analysis in the respective planning documents. Each plan (the Oil and Gas Leasing EAs tier from) considered varying degrees intensity of potential development of federal minerals: a range of acres “Open” (available) and “Closed” (not available) for oil and gas leasing and development. The range of alternatives also considered varying levels of major and/or moderate constraints for oil and gas development. These alternatives and assessment of impacts were previously analyzed and disclosed in the respective plans from which the Oil and Gas Leasing EAs tier from. The Oil and Gas Leasing EAs are in conformance with these plans and based on the assessment of impacts from the proposed action, still meet the defined management goals and objectives of specific resources that were considered.

Tiering allows the BLM to narrow the scope of the subsequent analysis, and focus on the issue(s) that are ripe for decision-making. Where climate change information and GHG emissions inventories and data were needed to help make an informed decision, the Oil and Gas Leasing EAs appropriately incorporated by reference (40 CFR 1502.21) analysis and documentation included in the Climate Change SIR (as updated October 2010). Again, the proposed action identified in the Oil and Gas Leasing EAs meet the management goals, objectives and specific management actions identified in the respective land-use plan decisions.

In conclusion, these Oil and Gas Leasing EAs include brief discussions of the need for the proposal, reasonable alternatives as required by sec 102(2)(E) [of NEPA] and include the environmental impacts of the proposed action and alternatives (40 CFR 1508.9(b)). An EA need not examine as broad a range of alternatives as an EIS, because the necessary range of alternatives diminishes as the expected impacts diminish.

## **B. BLM Failed to Prepare an Environmental Impact Statement and Failed to Revise or Amend its Land Use Plans**

Protest Contention: The WELC’s protest states that they are troubled by the BLM's comment that the agency anticipates finalizing our decision records (DRs) for the Oil and Gas Leasing EAs after the December oil and gas lease sale is held, but prior to lease issuance. Upon finalization, the DRs and accompanying findings of no significant impact (FONSI) will be publicly posted. According to the WELC, this demonstrates that the decision to proceed on the basis of an Oil and Gas Leasing EA has already been made and that the BLM does not intend to revise or amend its land use plans. In the opinion of the WELC, if this is the case, they do not understand why the BLM has not issued DRs and FONSI prior to the lease sale to help them better inform the [WELC] protest. As the WELC notes, “decision records and FONSI are critically important documents that explain the BLM's reasoning why impacts are insignificant and why, therefore, an Environmental Impact Statement ("EIS") - which acknowledges significant impacts - is unnecessary.” (At page 7 & 8)

According to the WELC, their concerns were made worse by the BLM's limited 30-day public comment period on the eight separate Oil and Gas Leasing EAs, each with separate lease parcels and site-specific issues, as well as the lengthy Climate Change SIR and its nine appendices. The BLM rejected the protestor's request for an additional 60 days for public comment. In the opinion of the protestors, this undermines the public's ability to understand and thereby protest the BLM's December 9, 2010 oil and gas lease sale.

Finally, the WELC contends that all the evidence demonstrates that an EIS is in fact necessary and, moreover, that the BLM needs to revise or amend our land use plans because of:

- Uncertainties and controversy regarding the magnitude of GHG emissions from oil and gas development, the global warming potential of methane over the 20-year planning and environmental review horizon, the horizon most appropriate to ensure the proper hard look at impacts and, moreover, the horizon used by the Leasing EAs themselves for gauging impacts other than climate change (for climate change, the Leasing EAs and SIR assume a 100-year horizon and, therefore, a lesser warming potential for methane);
- The precedent that these Leasing EAs set for justifying and authorizing BLM's future leasing decisions in Montana and the Dakotas;
- The potential that these GHG emissions are avoidable and thus constitute preventable waste and inefficiencies in how oil and gas resources are developed;
- The cumulative impact of oil and gas development and climate change on the climate.
- BLM's apparent inability to properly oversee the management of federal onshore oil and gas resources at the drilling stage.

**BLM RESPONSE:** The Oil and Gas Leasing EAs and corresponding FONSI prepared by each BLM Field Office took the requisite “hard look” at the possible impacts, including impacts from GHG emissions. The BLM reasonably concluded that the proposed action (offer and issue leases) would have no significant impacts. The impacts identified in the Oil and Gas Leasing EAs are within the threshold of those analyzed in the respective planning documents (specifically identified in Chapter 1, Plan Conformance section of each Oil and Gas Leasing EA). The BLM identified and applied lease stipulations (consistent with existing land-use plan decisions) as part of the proposed action. The BLM analysis assessed impacts and appropriately identified mitigation measures (40 CFR 1502.16), including GHG emissions reducing techniques, to address potential impacts should subsequent development be proposed (in which additional analysis would be prepared to address site-specific proposals). The Oil and Gas Leasing EAs are in conformance with the land-use plan level decisions, which allow for future implementation-level actions, based on NEPA analysis (such as these Oil and Gas Leasing EAs) to meet the identified resource management goals and objectives. The proposed action identified

in the Oil and Gas Leasing EAs is in conformance with those decisions and management guidelines (for all resources).

No potential environmental effects associated with the proposed action or alternatives (as identified in each respective Oil and Gas Leasing EA) meet the definition of significance in context or intensity as defined in 40 CFR 1508.27, nor do potential effects exceed those effects described in the RMP/EIS each Oil and Gas Leasing EA is tiered from. Further, as stated in the Oil and Gas Leasing EAs, the current state of science does not allow determinations to be made about the specific effects of specific actions with regard to the issue of impacts to global climate change (GCC) and/or levels of GHG emissions that may contribute to GCC, as discussed in the Oil and Gas Leasing EAs (40 CFR 1502.22). Given the state of science, preparation of an EIS is not warranted, as it would not provide further meaningful analysis with respect to the significance, or lack thereof, of this proposed action as to the issue of GCC or GHG emissions.

The analysis of GHG emissions in the Oil and Gas Leasing EAs provides estimated potential GHG emissions, based on a Reasonably Foreseeable Development (RFD) Scenario for oil and gas development in the planning area. The assumptions used to estimate GHG emissions were based on the full extent of potential development identified in the respective RFDs. This was done to ensure adequate analysis and estimates under any development level. The following approach was used to estimate GHG emissions associated with the NEPA alternatives: (1) The proportion of each project-level action alternative relative to the total RFD was calculated based on total acreage of parcels under consideration for leasing (and/or lifting of lease suspensions) relative to the total acreage of federal mineral acreage available for leasing in the RFD; (2) This ratio was then used as a multiplier with the total estimated GHG emissions for the entire RFD to estimate GHG emissions for that particular alternative.

It should be noted that the highest year GHG emissions output (from the RFD) was used to estimate/calculate the GHG emissions. Additionally, emission source inventories were not just those sources limited to actual production, but from associated development of the lease parcels including construction activities, vehicle exhaust (including worker transportation for all the development and operations activities, type of vehicle(s) used, average speed, etc.), operations, compressor stations and oil pumps, well completions and re-completions, Glycol Dehydrators, and facilities maintenance in the course of exploration, development and production. Further, the projected emissions data included in the Climate Change SIR and Oil and Gas Leasing EAs do not reflect future impacts (reductions) of recently promulgated and expected U.S. GHG regulations (Climate Change SIR at 1-3).

In summary, the analysis of the estimated GHG emissions showed that, in all cases, the potential incremental emissions of GHGs from exploration and development of fluid minerals (based on the scale of the proposed action) would be minor in the context of projected GHG contributions from the entire RFD planning area(s), as well as in the context of the State, National and Global analysis areas. The Oil and Gas Leasing EAs appropriately identify mitigation to reduce GHG emissions. In response to the WELC's comments submitted in September 2010, and to further assess the feasibility of GHG emissions reductions practices, the BLM prepared an analysis to

assess the feasibility and effectiveness of those mitigation techniques (excerpt from Miles City Oil and Gas Leasing EA at 4.2.2. and Climate Change SIR (at section 6.5)):

“... , the BLM estimated GHG emissions reductions based on the RFD for the Miles City FO. For emissions sources subject to BLM (federal) jurisdiction, the estimated emissions reduction represent approximately 51 percent reduction in total GHG emissions compared to the estimated Miles City FO federal GHG emissions inventory....The emissions reductions technologies and practices are identified as mitigation measures that could be imposed during development.” (Note: except for the light-duty vehicle GHG emission standards, no federal or state regulations mandate these GHG emissions reductions).

With regard to the WELC’s protest contention related to the accuracy of the BLM’s emission estimates, the Oil and Gas Leasing EAs and Climate Change SIR recognize and appropriately disclose inconsistencies (40 CFR 1502.22 (b)(4)) related to GHG emission inventories and indicate that accurate emission estimates and calculators are difficult to develop. Nonetheless, the BLM prepared RFD scenarios, developed assumptions and identified the methodology used to estimate GHG emissions (40 CFR 1502.24). The GHG emissions, particularly fugitive emissions, vary greatly from one oil and gas area to another based on a number of factors such as oil and gas field characteristics, equipment, and operational methods. However, the BLM is consistent with utilizing USEPA’s current methods in calculating emissions (Climate Change SIR, 5.0):

“A common calculation Tool was developed in order to produce consistent GHG and criteria pollutant emission inventories . . . Development of a sufficient calculation Tool that estimates emissions based on oil and gas development and operation activities was a critical first step for the development of the GHG emission inventories included in this Chapters...”

“A variety of emission calculation methods were used to estimate emissions. Detailed calculations and source data documentation are included in the emission calculation spreadsheets included in Appendices B through I. Calculations were based on factors from the following documents and models:

- *AP 42 Fifth Edition, Volume 1* (USEPA 1998, 2000, 2006k)
- USEPA Mandatory GHG Reporting Rule (GPO 2010b)
- USEPA NONROADS 2008a
- MOBILE6.2.03
- *Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry* (API 2009)
- *Protocol for Equipment Leak Emissions Estimates* (USEPA 1995...”.

Estimating emissions using USEPA’s techniques is well-or field specific; there is no default value. Based on these considerations, the BLM feels the calculations are reasonable and consistent with USEPA. Accurate and precise GHG emission estimates are difficult to develop

given the level of data currently available to the BLM. Oil and gas operators have not historically been required to quantify or report GHG emissions. Furthermore, quantification of fugitive GHG emissions is only recently beginning to occur. In the future, as the oil and gas industry complies with the USEPA Greenhouse Gas Mandatory Reporting Rule<sup>2</sup>, it is anticipated that more detailed and accurate GHG emission inventory data would be available. However, until such a time, the BLM has utilized the best available science (40 CFR 1502.22) to estimate and disclose potential GHG emissions and inform the public and decision maker of the potential impacts, as well as mitigation technologies that could be available to minimize GHG emissions.

Specific to the WELC's protest contention on Global Warming Potential (GWP), the analysis discloses that GHG life spans and GWPs do vary greatly (Climate Change SIR Table 2-2). The Oil and Gas Leasing EAs (summarized in Chapter 3, Section 3.2.2. of the Miles City EA and detailed in the Climate Change SIR, Chapter 2) state that:

“...earth has a natural greenhouse effect wherein naturally occurring gases such as water vapor, CO<sub>2</sub>, methane, and N<sub>2</sub>O absorb and retain heat. Without the natural greenhouse effect, earth would be approximately 60°F cooler (Climate Change SIR 2010). Current ongoing global climate change is believed by scientists to be linked to the atmospheric buildup of GHGs, which may persist for decades or even centuries. Each GHG has a global warming potential that accounts for the intensity of each GHG's heat trapping effect and its longevity in the atmosphere (Climate Change SIR 2010). The buildup of GHGs such as CO<sub>2</sub>, methane, N<sub>2</sub>O, and halocarbons since the start of the industrial revolution has substantially increased atmospheric concentrations of these compounds compared to background levels. At such elevated concentrations, these compounds absorb more energy from the earth's surface and re-emit a larger portion of the earth's heat back to the earth rather than allowing the heat to escape into space than would be the case under more natural conditions of background GHG concentrations.

A number of activities contribute to the phenomenon of climate change, including emissions of GHGs (especially carbon dioxide and methane) from fossil fuel development, large wildfires, activities using combustion engines, changes to the natural carbon cycle, and changes to radiative forces and reflectivity (albedo). It is important to note that GHGs will have a sustained climatic impact over different temporal scales due to their differences in **global warming potential** (described above) and life spans in the atmosphere. For example, CO<sub>2</sub> proper may last 50 to 200 years in the atmosphere while methane has an average atmospheric life time of 12 years (Table 2-2, Climate Change SIR, 2010).”

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<sup>2</sup> As of July 2010, USEPA had not set GHG emission limits for any stationary sources. However, the USEPA is gathering detailed GHG emission data from thousands of facilities throughout the United States. Data gathered during this effort will be used by USEPA to develop an improved national GHG inventory and to inform future GHG emission control regulations. In accordance with USEPA's GHG Mandatory Report Rule [40 *Code of Federal Regulations (CFR)* Part 98, GPO 2010b] many oil and gas facilities will begin estimating emissions in 2011 and will submit their first annual GHG emission reports on March 31, 2012.

The USEPA's 100-year GWPs are codified in the CAA regulations (40 CFR Part 98) and therefore, are typically used as the default GWPs throughout the industry. The BLM's analysis and application of GWP factors are consistent with the USEPA's use of 100-year GWPs and is appropriate for this analysis. The use and analysis of multiple GWPs for different time frames would be difficult to describe as the RFDs temporal scale varies. Additionally, comparisons of CO<sub>2</sub>e developed using multiple time-frame GWPs would be misleading, as there are time-lag discrepancies between emissions reduction and atmospheric changes. The 100-year (GWP) assessment timeframe addresses those pollutants that are in the air long-term.

Finally, the BLM fulfilled the public notice requirements for an EA. When a decision requires only an EA, rather than an EIS, the BLM must involve the public in the NEPA process "to the extent practicable" (40 CFR 1501.4(b)). In the case of these eight Oil and Gas Leasing EAs, the BLM met the requirements under NEPA to involve and inform the public of its decision-making processes. The BLM provided the public with a 15-day public scoping period (including detailed descriptions of the parcels preliminary lease stipulations) and a 30-day comment period on the EAs and unsigned FONSI's. Additionally, the BLM provided the public with Notice of the Lease Sale, including a detailed description of the parcels and applicable lease stipulations, and in some cases, parcels deferred from this lease sale. The Oil and Gas Leasing EAs, updated based on public comments, were also re-posted on the website at the same time the Lease Sale Notice was posted. The Lease Sale notice provided information on how to protest the Lease Sale. All of these opportunities provided the public a meaningful way to submit comments, and the WELC took full advantage of these public participation opportunities. Further, the BLM accepted the WELC's supplement to their protest of the lease sale (received by the BLM on December 1, 2010).

Regarding the concern raised from the WELC whereby the lease sale was scheduled prior to issuance of a DR and FONSI, the BLM appropriately released unsigned FONSI's (40 CFR 1501.4(e)(1)) along with the Oil and Gas Leasing EAs for public review and comment. Releasing the documents for public review and comment allowed the public, agencies, and tribes the opportunity to respond to the analysis of impacts and to further long-term collaborative efforts. The FONSI is not the authorizing document for the action. Before issuing decisions, the BLM wanted to fully consider the issues raised in the protest received on the December 9, 2010 Oil and Gas Lease Sale. The BLM will then finalize and sign the FONSI's and DRs.

In conclusion, pursuant to regulations (40 CFR 1500-08), the BLM prepared Oil and Gas Leasing EAs to determine if there is a significant impact to the environment that would necessitate the need to prepare an EIS (40 CFR 1501.3, 1501.4). The Council on Environmental Quality (CEQ) regulations defines an EA as a concise public document that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI. An EA should include "brief discussions" of the need for the proposal, [reasonable] range of alternatives as required by sec 102(2)(E) [of NEPA], and the environmental impacts of the proposed action and alternatives (40 CFR 1508.9(b)). Based on the analysis presented in the Oil and Gas Leasing EAs, no potential environmental effects associated with the proposed action or alternatives meet the definition of significance in context or intensity as defined in 40 CFR

1508.27, nor do potential effects exceed those effects described in the planning documents that each EA is tiered from. Therefore, an EIS does not need to be prepared and land-use plans do not need to be amended.

### **C. BLM Failed to Take a Hard Look at Direct, Indirect, and Cumulative GHG Pollution**

Protest Contention: In the opinion of the protestor, “BLM's analysis of GHG pollution does not satisfy the agency's duty to take a hard look at the direct, indirect, and cumulative GHG pollution associated with the `upstream' exploration and production of oil & gas resources. Many of the deficiencies in BLM's analysis parallel deficiencies in BLM's decision to proceed on the basis of EAs that, by definition, presume the insignificance of GHG emissions from oil & gas development - a presumption that drives BLM's decision to take a business-as-usual approach to the December 9<sup>th</sup> lease sale. These are issues that must be addressed through a hard look NEPA analysis - an analysis that must take the form, here, of an EIS.

In particular, BLM has failed to address serious uncertainties involved in current assumptions driving calculations of GHG emissions from oil & gas development.” (At page 9)

BLM Response: The Oil and Gas Leasing EAs prepared took the requisite ‘hard look’ at the possible direct, indirect, and cumulative impacts from potential GHG emissions, and the BLM reasonably concluded that the leases would have no significant impacts. The BLM analyzed and disclosed the direct, indirect, and cumulative effects of potential GHG emissions based on RFD scenarios for oil and gas resources. Analytical assumptions are used in the Oil and Gas Leasing EAs to estimate impacts. Impact analysis is based on BLM Montana, North Dakota, and South Dakota oil and gas GHG emission inventories (Climate Change SIR 5.0) and RFDs presented for each planning area (Climate Change SIR 4.0). The RFDs provide temporal, spatial and intensity assumptions for projected development of oil and gas resources, and are based on peer-reviewed research and past, present and projected development using the best currently available data.

For each EA planning area, a detailed inventory of GHG emissions was prepared, which involved data collection, assumptions and calculations. Appendix B through I (Climate Change SIR) includes over 500 pages of detailed emissions estimates for each EA that was collected and analyzed to address the direct, indirect and cumulative impacts of potential GHG emissions (while not intended to be an exhaustive list of sources, the inventories provide the data to estimate potential GHG emissions).

These very detailed emissions estimates were summarized in the eight Oil and Gas Leasing EAs and the Climate Change SIR (Section 5.0). To estimate GHG emissions, the BLM used the highest year emissions output from the respective RFDs and considered cumulative emissions from all possible well development in the (respective EA) planning areas. In addition, the emissions inventory includes estimates from development and operations activities which are beyond BLM’s jurisdiction. It should be noted that the emissions calculations (results) were not adjusted to account for anticipated use of GHG emissions mitigation measures at the development stage. As demonstrated through analysis (in response to a comment received from

the WELC as to the effectiveness of mitigation) mitigation measures (e.g., standard operating procedures, BMPs, COAs based on BLM policies, state permit requirements, etc.) will substantially reduce those emissions over the practices that formed the basis for the inventory (Climate Change SIR Section 6.5 and Oil and Gas EAs Chapter 4 Mitigation sections). Thus, the BLM over-estimated the potential GHG emissions attributable to the BLM's oil and gas leasing decisions, but still rationally concluded that those overestimations would not be significant and took the requisite 'hard look' at potential GHG emissions.

The BLM does not presume the insignificance of GHG emissions from oil and gas development, but rather, fully discloses potential GHG emissions and illustrates their scale and magnitude as a comparative tool utilizing figures derived from the Climate Change SIR and the Center for Climate Science (Table 1 below). In all cases, the potential incremental emissions of GHGs from exploration and development of fluid minerals on parcels from the proposed action would be minor in the context of projected GHG emissions contributions from the entire RFD for the respective planning areas, as well as in the context of the State, National and Global analysis areas. For example, as analyzed in the Miles City Oil and Gas Leasing EA (from Chapter 4, GHG emissions and climate change direct/indirect impacts; and cumulative impacts sections):

However, comparisons of emissions projected by the BLM for its oil and gas production activities are made with those from inventories at other scales for the sake of providing context for the potential contributions of GHGs associated with this project.

As discussed in the Air Quality section of Chapter 4, total projected BLM GHG emissions from the RFD are 610,741.1 metric tons/year CO<sub>2</sub>e. Potential emissions under Alternative B would be approximately 1.2 percent of this total. Table 18 displays projected GHG emissions from non-BLM activities included in the Miles City RFD. Total projected emissions of non-BLM activities in the RFD are 1,382,889.8 metric tons/year of CO<sub>2</sub>e. When combined with projected annual BLM emissions, this totals 1,993,630.9 metric tons/year CO<sub>2</sub>e. Potential GHG emissions under Alternative B would be 0.37 percent of the estimated emissions for the entire RFD. Potential incremental emissions of GHGs from exploration and development of fluid minerals on parcels within Alternative B would be minor in the context of projected GHG contributions from the entire RFD for the Miles City FO.

Potential emissions from development of lease parcels in Alternative B of this project represent approximately 0.020 percent of the state-wide total of GHG emissions based on the 2005 state-wide inventory (CCS 2007) . . . Potential annual emissions under Alternative B of this project would amount to approximately 0.00011 percent of gross U.S. total emissions . . . Potential annual emissions under Alternative B would amount to approximately 0.000015 percent of this global total.

As indicated above, although the effects of greenhouse gas emissions in the global aggregate are well-documented, it is currently not credibly possible to determine what specific effect GHG emissions resulting from a particular activity might have on climate

or the environment. If exploration and development occur on the lease parcels considered under Alternative B, potential GHG emissions described above would incrementally contribute to the total volume of GHGs emitted to the atmosphere, and ultimately to climate change.

The table below illustrates the scale and magnitude of potential GHG emissions as a comparative tool, as summarized from the eight Oil and Gas Leasing EAs.

Table 1.

Total estimated annual Montana emissions of CO <sub>2</sub> e in 2005 (Center for Climate Science (CCS))	36,800,000 t
Total estimated annual BLM Montana emissions of CO <sub>2</sub> e under Alternative B	7,568.9 t
Potential emissions from development of all BLM Montana lease parcels in Alternative B as a percentage of the state-wide total of GHG emissions based on the 2005 CCS inventory	.0205% <sup>3</sup>
Total estimated annual North Dakota emissions of CO <sub>2</sub> e in 2007 (CRS Report to Congress: State GHG Emissions Comparison and Analysis)	57,000,000 t
Total estimated annual BLM North Dakota emissions of CO <sub>2</sub> e under Alternative B	3,164 t
Potential emissions from development of all BLM North Dakota lease parcels in Alternative B as a percentage of the state-wide total of GHG emissions based on the 2007 CRS Report	.0055%
Total estimated annual South Dakota emissions of CO <sub>2</sub> e in 2005 (Climate Change SIR, 2010)	36,500,000 t
Total estimated annual BLM South Dakota emissions of CO <sub>2</sub> e under Alternative B	5,552 t
Potential emissions from development of all BLM South Dakota lease parcels in Alternative B as a percentage of the state-wide total of GHG emissions based on the 2010 SIR Report	.015%

It should be noted that the first (and currently the only) regulation to limit emissions of GHGs affects only light-duty vehicles (the rule sets vehicle manufacturer emission limits for CO<sub>2</sub> and became effective on July 6, 2010 (GPO 2010c)). Beginning in 2011, GHG emissions from some facilities will become subject to federal air quality permitting programs, such as the Title V Operating Permit Program and the Prevention of Significant Deterioration (PSD) Program. Based on the lack of existing regulatory policies, the BLM appropriately identified GHG emissions reductions practices as mitigation to allow for adaptability to changing technology and BLM policies.

Additionally, accurate GHG emission estimates are difficult to develop with the level of data currently available to the BLM. As of July 2010, USEPA had not set GHG emission limits for any stationary sources. However, the USEPA is gathering detailed GHG emission data from thousands of facilities throughout the United States. Data gathered during this effort will be used by USEPA to develop an improved national GHG inventory, in accordance with USEPA's GHG Mandatory Reporting Rule [40 *Code of Federal Regulations (CFR)* Part 98, GPO 2010b], and inform future GHG emission control regulations. This review may lead to more accurate estimates of GHG emissions from these facilities and may prompt GHG emission monitoring in some cases. The BLM used the best available information and sources to disclose estimated GHG emissions for this analysis.

<sup>3</sup> Potential emissions from development of Miles City lease parcels in Alternative B represent 97% of potential emissions from all BLM Montana lease parcels analyzed in Alternative B of the Oil and Gas Leasing EAs.

In conclusion, while the WELC contends that there are many uncertainties involving GHG inventories, the BLM analysis is consistent with current methodologies and the best available data. The Climate Change SIR (Section 1.3) and Oil and Gas Leasing EAs identify assumptions and methodologies, as well as disclose inconsistencies, with GHG emission inventories and difficulties in developing accurate emission estimates (40 CFR 1502.22; 40 CFR 1502.24). The estimated GHG emissions, particularly fugitive emissions, vary greatly from one oil and gas area to another based on oil and gas field characteristics, equipment, and operational methods. Estimating emissions using USEPA's techniques is well- or field specific; there is no default value. Based on these considerations, the BLM feels the calculations are reasonable and consistent with USEPA.

#### **D. BLM Failed to Take a Hard Look at Oil & Gas Waste & Inefficiencies**

Protest Contention: The protest states that the BLM must also take a hard look at methane waste caused by production inefficiencies through NEPA. The emission of methane is not simply a climate and air quality issue, but also a basic mineral resource management issue. However, in the opinion of the WELC, the Oil and Gas Leasing EAs and Climate Change SIR fail to acknowledge, let alone evaluate, this relevant factor. In the opinion of the WELC, the Oil and Gas Leasing EAs fail to provide any meaningful analysis of how oil and gas production on the leases would transpire, or an evaluation of the specific equipment and how that equipment is used for that production.

The protest also notes the BLM's likely response to the suggestion of a detailed site-specific analysis of future production on the leases would be to assert that that it does not know whether and where development will take place on the lease. The protest alleges this is a tired canard quoting several Federal court decisions. The WELC contends that a detailed analysis is required.

The protest notes

“the BLM's complaint that it does not know whether or where development will take place on a particular lease begs the question why BLM is granting surface use rights in the first place through execution of the lease. BLM should, in this situation, retain the authority to preclude, absolutely, drilling pending proper site-specific evaluation as well as the full authority to prevent or, as appropriate, abate GHG pollution through whatever means necessary - not just whatever means are consistent with lease rights.”

Finally, the protest claims that

“when the Climate Hawks have raised this issue with BLM, BLM has responded that it addresses waste through mitigation and application of its onshore orders and other measures, such as Notices to Lessees. But such mitigation, even if it is actually used in field-level operations, does not obviate BLM's duty, pursuant to NEPA, to take a hard look at methane waste and inefficiency. The NEPA hard look is a prerequisite of effective

mitigation, identifying the scale and magnitude of a problem, acceptable (and unacceptable) impact levels, and evaluating alternative means of reducing that impact within those acceptable impact levels. Thus, it is not simply a question of whether mitigation is or is not occurring, but whether that mitigation is actually effective and commensurate to the scale and magnitude of the problem - a problem that the Leasing EAs do not even acknowledge. This is why WELC also recommended that BLM consider alternatives, such as RMP-stage management actions and lease-stage stipulations. Problems can be addressed in different ways, but the choice of how to address a problem must be addressed first by taking a hard look at the problem and then comparing and contrasting different solutions.” (At page 11)

**BLM RESPONSE:** The Oil and Gas Leasing EAs took the requisite ‘hard look’ at the possible direct, indirect, and cumulative impacts from the proposed action, and the BLM reasonably concluded that lease issuance would have no significant impacts and would not result in oil and gas waste and inefficiencies.

The WELC contends that the BLM did not provide adequate detail needed for adequate impact analysis and to evaluate waste and inefficiencies. To the contrary, the BLM, in an effort to take the requisite ‘hard look’, prepared detailed RFD scenarios for each of the Oil and Gas Leasing EAs which identify development potential and assumptions to estimate impacts. The RFDs contain detailed descriptions of how oil and gas would be developed in the planning area, including information on projected disturbance for all types of wells that might be expected in the area of the lease parcels under consideration. This includes information on well pad sites, access roads, utility lines, transportation lines, processing, and produced water management (Miles City EA, Chapter 4 Assumptions):

“ . . . Even if lease parcels are leased, it remains unknown whether development would actually occur, and if so, where specific wells would be drilled and where facilities would be placed. This would not be determined until the BLM receives an APD in which more detailed information about proposed activities and facilities would be clarified for particular lease parcels. Therefore, this EA discusses potential effects that could occur in the event of development. . . The RFD contains projections of the number of possible oil and gas wells that could be drilled and produced in each of the seven project areas where the lease parcels are located. . . . The potential number of acres disturbed by exploration and development activities is shown in Tables C-1 and C-2 in Appendix C. The potential acres of disturbance reflect acres typically disturbed by construction, drilling, and production activities, including infrastructure installation throughout the MCFO. Typical exploration and development activities and associated acres of disturbance were used as assumptions for analysis purposes in this EA . . . ”

In addition to assumptions for potential future development, the Oil and Gas Leasing EAs disclose annual GHG source emissions from BLM-permitted activities associated with the RFD. The source year used to estimate/calculate the GHG emissions was the highest production year (from the RFD). Additionally, emission source inventories were not just those sources limited to

actual production, but from associated development of the lease parcels including construction activities, vehicle exhaust (including worker transportation for all the development and operations activities, type of vehicle(s) used, average speed, etc.), operations, compressor stations and oil pumps, well completions and re-completions, Glycol Dehydrators, and facilities maintenance in the course of exploration, development and production (Sections 5.2 and 5.3, Climate Change SIR). Many of these sources are outside of the BLM's authority and jurisdiction.

In response to a specific comment submitted by the WELC, and to further assess the feasibility of GHG emissions reduction technologies, the BLM prepared additional analysis in an effort to disclose potential future GHG emissions reductions that might be feasible. The analysis indicated that for emissions sources subject to BLM (federal) jurisdiction, the estimated emissions reduction represent approximately 51 percent reduction in total GHG emissions (compared to the estimated Miles City FO federal GHG emissions inventory).

In conclusion, the BLM took a hard look at the potential GHG emissions from equipment and practices (based on a high-year output), and techniques that could improve efficiencies of potential future lease operations. In addition, the leases (as identified in the proposed action) contain standard provisions that require the lessee to comply with existing and future direction of the BLM in any development of the lease parcels. The leases also state that the lessee shall exercise reasonable diligence in development and production, and shall prevent unnecessary damage to, loss of, or waste of leased resources.

## **E. BLM Has Failed to Take a Hard Look at Climate Change Impacts to the Environment**

Protest Contention: The protest contends that . . .

“oil & gas development impacts the environment, and climate change impacts the environment. . . . The direct, indirect, and *cumulative* impacts of oil and gas development and climate change are considerable. . . . While BLM's Leasing EAs and the associated URS Supplemental Information Report ("SIR") have provided general background information regarding climate change impacts, the Leasing EAs and SIR are devoid of an actual hard look analysis at oil & gas and climate change impacts.” (At page 12)

The protest also contends

“NEPA's hard look requirement is not conditioned on BLM's ability to chase a GHG molecule from its emissions source to a specific impact to the environment. The general mechanics of climate change are already well understood, mechanics that attest to the core problem at the heart of climate change: the total, aggregate, and intensifying concentration of GHG pollution in the atmosphere which causes global warming, deteriorates our climate, and impacts land, water, wildlife, and other resources and values of our public lands. Furthermore, NEPA's hard look requirement is not conditioned on BLM's ability to "quantify" impacts; qualitative analysis is perfectly appropriate, especially here. Again, "[r]easonable forecasting and speculation is . . . implicit in NEPA, and we must reject any attempt by

agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.'"

The protest continues on to say

"BLM does note, in conceding that it has not evaluated direct and indirect impacts, refers the reader to the cumulative impacts analysis. That analysis, however, provides BLM with no harbor as it does not provide any analysis of impacts to specific resources from climate change, whether direct, indirect, or cumulative." (At page 13).

**BLM RESPONSE:** The BLM prepared and analyzed GHG emissions from hypothetical lease development (based on development assumptions for respective EA planning area RFD Scenarios). The BLM collected data and analyzed detailed GHG emissions inventories (Climate Change SIR Appendix B through I) in an effort to disclose emissions from potential development. The level of detail and consideration of potential emissions sources ranged from emissions from compression stations to details about worker transportation to and from the worksite. The BLM's analysis of the potential effects of climate change and GHG emissions from execution of the oil and gas leases at issue surpass the standards for EAs. Each of the Oil and Gas Leasing EAs contain more than brief discussions of potential GHG emissions that might result if the particular lease parcel(s) addressed in each Oil and Gas Leasing EA were offered and sold, as well as the potential for climate change to affect the environment in Montana, North Dakota, South Dakota, nationally, and globally.

The BLM acknowledges that a number of activities contribute to the phenomenon of climate change at global and regional scales, including emissions of GHGs. The Climate Change SIR describes impacts of climate change in detail at various scales, including the state scale where appropriate. The Oil and Gas Leasing EAs and Climate Change SIR outline potential changes identified by the USEPA (USEPA 2008) that are expected to occur at the regional scale, including the area of the Proposed Action. The USEPA identifies this area as part of the Mountain West and Great Plains region. As noted in the WELC's protest, the BLM contends it is impossible to predict specific climate changes and their impacts on the environment based on very specific actions at a specific localized scale (the proposed action) (Miles City Oil and Gas Leasing EA, Section 3.2.2):

"... While long-range regional changes might occur within this project area, it is impossible to predict precisely when they could occur. The following example summarizing climate data for the West North Central Region (MT, ND, SD, WY) illustrates this point at the regional scale. A potential regional effect of climate change is earlier snowmelt and associated runoff. This is directly related to spring-time temperatures. Over a 112-year record, overall warming is clearly evident with temperatures increasing 0.21 degrees per decade (Figure E). This would suggest that runoff may be occurring earlier than in the past. However, data from 1991-2005 indicates a 0.45 degree per decade cooling trend (Figure F). This example is not an

anomaly, as several other 15-year windows can be selected to show either warming or cooling trends. Some of these year-to-year fluctuations in temperature are due to natural processes, such as effects of El Ninos, La Ninas, and the eruption of large volcanoes (Climate Change SIR 2010). This information illustrates the difficulty of predicting actual regional or site-specific changes or conditions which may be due to climate change during any specific time frame. . .”.

Nonetheless, despite these uncertainties, the BLM addressed the potential for oil and gas development and the estimated (potential) GHG emissions. Through RFD scenarios (Climate Change SIR 4.0) and GHG emission inventories (Climate Change SIR 5.0) for each of the planning areas, the BLM does estimate the maximum potential GHG emissions resulting from future development of lease parcels. As indicated in Table 1, Part C above, potential emissions from development of all BLM Montana lease parcels from the proposed action from the Montana Oil and Gas Leasing EAs, as a percentage of the Montana state-wide total of GHG emissions, is 0.0205 percent.

The BLM used the highest year to calculate GHG emissions (from the respective RFDs) and considered cumulative emissions from all possible well development in the Oil and Gas Leasing EA planning areas. In addition to estimated emissions from production, the inventory includes emissions estimates from development and operations activities which are beyond the BLM’s jurisdiction. The BLM did not adjust the GHG emissions analysis to account for anticipated use of GHG emissions mitigation measures at the development stage, which will substantially reduce (as demonstrated through analysis, Climate Change SIR Section 6.5 and Oil and Gas EAs Chapter 4 Mitigation sections) those emissions over the older practices that formed the basis for the inventory. Thus, the BLM likely overestimated the potential GHG emissions attributable to its oil and gas leasing decisions, but still rationally concluded that those overestimations would not be significant and took the requisite ‘hard look’ at potential GHG emissions.

In conclusion, the inconsistency in results of scientific models used to predict climate change at the global scale, coupled with the lack of scientific models designed to predict climate change on regional or local scales, limits the ability to quantify potential future impacts of decisions made at this level. Moreover, it is beyond the scope of existing science to relate a specific source of GHG emission (or sequestration) with the creation or mitigation of any specific climate related environmental effects. However, the BLM took the requisite ‘hard look’ at the impacts to the environment, and estimated (quantified) and disclosed GHG emissions, disclosed the potential impacts, and appropriately identified reasonable mitigation measures that could reduce potential emissions during future development stages.

#### **F. BLM Has Failed to Prevent Unnecessary or Undue Degradation and Waste**

Protest Contention: The protest contends that “BLM has a basic duty to prevent unnecessary or undue degradation and, further, a duty to prevent waste pursuant to the Federal Land Policy and Management Act ("FLPMA") and Mineral Leasing Act ("MLA"), as amended.” The protest adds that “it is entirely unclear whether and how BLM has complied with these duties here.”

Finally, the protest contends “the Climate Hawks could not find a *single* reference in BLM’s leasing EAs pertaining to these substantive duties . . . “ (At page 14).

**BLM RESPONSE:** The BLM prepared analysis, in accordance with NEPA, and determined that the issuance and potential development of the leases will not result in waste or ‘unnecessary or undue degradation’ of BLM lands, and thus is in compliance with the FLPMA and MLA. Section 302(b) of the FLPMA states that “In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.”

The Oil and Gas Leasing EAs present analysis and identify actions (either through lease stipulations or mitigation to be applied through subsequent site-specific development proposals (NEPA)) to prevent unnecessary or undue degradation of the public lands (43 U.S.C 1732(b)) and is in compliance with the MLA and FLPMA. Further, the BLM manages venting and flaring of gas from federal wells as described in the provisions of Notice to Lessees (NTL) 4A, Royalty or Compensation for Oil and Gas Lost. The BLM, following the requirements of NTL 4A and the use of COAs as needed, does not allow waste of oil and gas resources, nor does the BLM cede any authority it may have to assess and control GHG emissions after leases are issued. The term waste in this context is defined at 30 U.S. Code § 225 “All leases of lands containing oil or gas made or issued under the provisions of this chapter, shall be subject to the condition that the lessee will, in conducting his explorations and mining operations, use all reasonable precautions to prevent waste of oil or gas developed in the land...” Additionally, “Waste of oil or gas means any act or failure to act by the operator that is not sanctioned by the authorized officer as necessary for proper development and production and which results in: (1) A reduction in the quantity or quality of oil and gas ultimately producible from a reservoir under prudent and proper operations; or (2) avoidable surface loss of oil or gas.” (43 CFR § 3160.0-5).

The Interior Board of Land Appeals (IBLA) has ruled on the standard of unnecessary and undue degradation expressed in the FLPMA several times in recent years. The IBLA has recognized that “neither FLPMA nor implementing regulations defines the term unnecessary or undue degradation.” *Colorado Envtl. Coalition*, 165 IBLA 221, 229 (holding that surface occupancy and drilling did not per se constitute unnecessary or undue); *Wyoming Outdoor Council*, 171 IBLA 108, 121 (2007); *see also Biodiversity Conservation Alliance*, 174 IBLA 1, 5 (2008). Through these decisions, the IBLA has maintained its position in regard to the “unnecessary or undue degradation” requirement:

Notwithstanding the lack of a definition in the onshore oil and gas regulations, to show that an action results in undue or unnecessary degradation of leasehold lands, at a minimum, an appellant would have to show that a lessee’s operations are or were conducted in a manner that does not comply with applicable law or regulations, prudent management and practice, or reasonably available technology, such that the lessee could not undertake that action pursuant to a valid existing right. 165 IBLA at 229 (emphasis added).

In Wyoming Outdoor Council, et. al., (IBLA 205-147), the IBLA addressed the standard as it relates to oil and gas leasing. In that decision, the IBLA addressed arguments relating to oil and gas leasing by the BLM in Wyoming.

The IBLA (171 IBLA 121 (2007)) rejected appellants' argument that BLM's failure to incorporate other standards and guidelines into each of the subject leases amounts to a violation of section 302(b) of FLPMA, 43 U.S.C. § 1732(b), which requires BLM to "take any action necessary to prevent unnecessary or undue degradation of the [public] lands." The Board noted neither FLPMA nor implementing regulations defines the term 'undue or unnecessary degradation.' In contexts other than oil and gas, the BLM has promulgated regulations defining the term; see, e.g., 43 CFR 2800.0-5(x) (rights-of-way); 43 CFR 3600.0-5(l) (exploration and mining and wilderness review); 43 CFR 3809.5 (surface management). No similar definition appears in the onshore oil and gas regulations (See 43 CFR 3100.0-5, definitions for Onshore Oil and Gas Leasing: General and 3160.0-5, definitions for Onshore Oil and Gas Operations).

In the identified case, the IBLA ruled that the appellants had not shown that the BLM's failure to incorporate additional policies, plans, and guidelines into the protested leases would result in injury to big game species and their habitat, and thus cause unnecessary and undue degradation to the parcels.

In conclusion, the leases (as identified in the proposed action (Chapter 2, Oil and Gas Leasing EAs)), contain standard provisions that require the lessee to comply with existing and future direction of the BLM in any development of the lease parcels, and also state that the lessee shall exercise reasonable diligence in development and production and shall prevent unnecessary damage to, loss of, or waste of leased resources. The WELC failed to show how the BLM's actions in this case will be done in a manner inconsistent with the regulations or prudent oil and gas practices, and provided no objective proof that leasing or subsequent development will result in unnecessary or undue degradation or waste.

### **G. BLM Failed to Analyze and Assess Related Air Quality Impacts and Comply With Air Quality Standards**

Protest Contention: The protest contends that the "BLM's failure to take a hard look at GHG pollution and climate change impacts associated with the proposed leasing is especially troublesome in light of the associated air quality impacts.

Methane is often released with volatile organic compounds ("VOCs"), a pollutant regulated under the CAA. VOCs react with sunlight to form ground-level ozone, as USEPA has noted, for example, that a number of methane control options achieve the co-benefit of reducing methane. Thus, there is a clear link between the GHG and more traditional air pollution from oil & gas operations.

Regardless, there are also number of traditional air pollution concerns associated with oil & gas development in Montana and the Dakotas that BLM has not properly addressed.” (At page 14 & 15)

**BLM RESPONSE:** In all Oil and Gas Leasing EAs, air quality within the proposed project areas is rated as very good. The USEPA calculates the Air Quality Index (AQI) for the five major criteria pollutants regulated by the CAA; ground level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. The WELC’s protest contends that “the BLM is proposing to move forward with the proposed leases without providing for compliance with federal air quality standards.” On the contrary, the AQI data summarized in each of the Oil and Gas Leasing EAs, as well as current monitoring data within the project areas, indicate that criteria pollutants fall well below applicable air quality standards, resulting in full compliance with the CAA. The maximum potential level of development through implementation of Alternative B with applicable mitigation outlined in Ch. 4 of the Oil and Gas Leasing EAs is expected to maintain this level of air quality. In addition, pollutants would be regulated through the use of state-issued air quality permits or air quality registration processes developed to maintain pollutant levels well below applicable standards<sup>4</sup>.

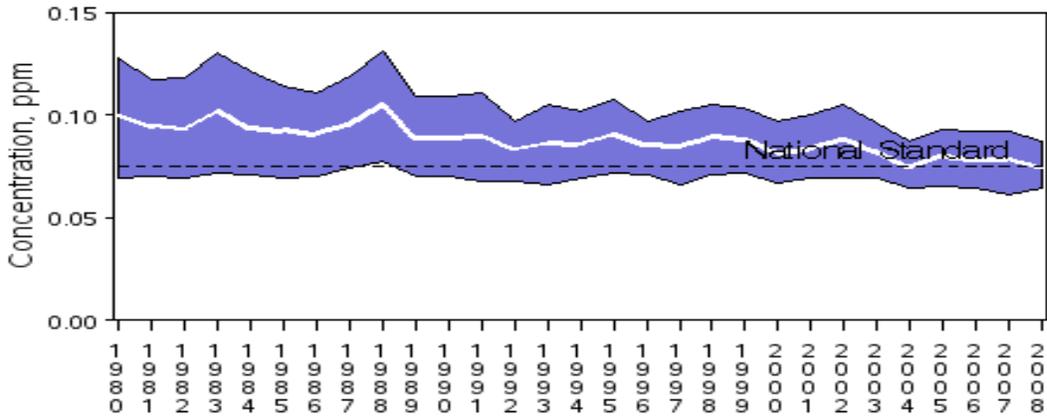
The USEPA finalized a revised National Ambient Air Quality Standard (NAAQS) for ground level ozone in 2008, which limited ozone concentrations to no more than .075 parts per million (ppm) over an 8 hour period. The WELC’s protest includes a USEPA map of areas likely to violate *proposed* ground level ozone NAAQS (the USEPA has proposed revising the ground level ozone concentration limits from .075 ppm per 8 hour period to between .06 and .07 ppm; this proposal has not been finalized). The BLM cannot manage for, nor can the states regulate, ground level ozone levels for proposed standards.

Using a nationwide network of monitoring sites, the USEPA has developed ambient air quality trends for ozone. Trends are shown in the graph below for the 8 hour ozone standards. Under the CAA, the USEPA sets and reviews national air quality standards for ozone. Air quality monitors measure concentrations of ozone throughout the country. The USEPA and state, tribal and local agencies use that data to ensure that ozone is at levels that protect public health and the environment. Nationally, average ozone levels declined in the 1980’s, leveled off in the 1990’s, and showed a notable decline after 2002 (data found at <http://www.epa.gov/airtrends/ozone.html>).

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<sup>4</sup> Title V of the CAA delegates the air quality regulation process to individual states. Regulations that establish the standards for State issued Title V operating permits are found in the Code of Federal Regulations (CFR) at 40 C.F.R. Part 70. The MT Department of Environmental Quality, the ND Division of Air Quality, and the SD Department of Environment and Natural Resources issue Air Quality Permits for both stationary sources and portable emitting units. Administrative Rules of Montana (ARM) Title 17, Chapter 8, Subchapter 17 – Registration of Air Contaminant Sources (Subchapter 17) allows oil or gas well facilities to register with the Department in lieu of obtaining a Montana Air Quality Permit (MAQP) and issues MAQPs for other sources, including compressors, according to ARM Title 17, Chapter 8, Subchapter 7; <http://deq.mt.gov/AirQuality>. North Dakota requires registration of any emission producing oil and gas production facility; <http://ndhealth.gov/AQ/OilAndGasWells>. South Dakota issues minor source operating permits in addition to Title V Permits for oil and gas production facilities; <http://denr.sd.gov/des/aq/airprogr>.

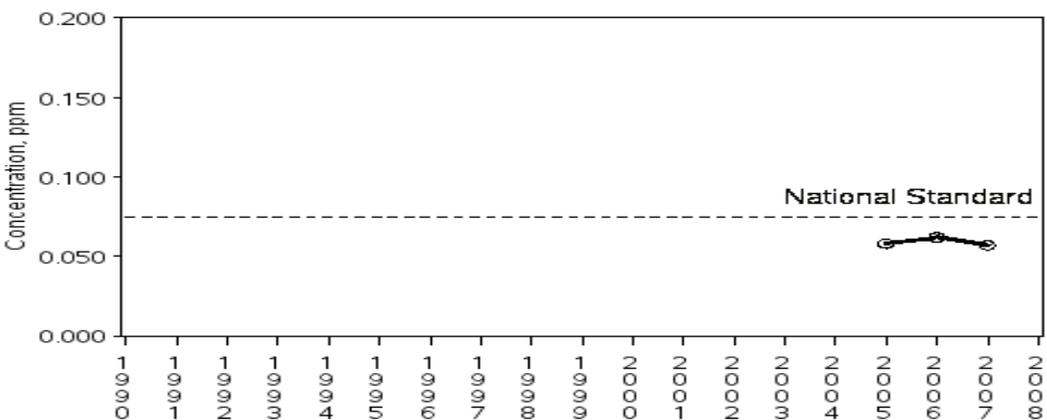
**Ozone Air Quality, 1980 - 2008**  
 (Based on Annual 4th Maximum 8-Hour Average)  
 National Trend based on 258 Sites



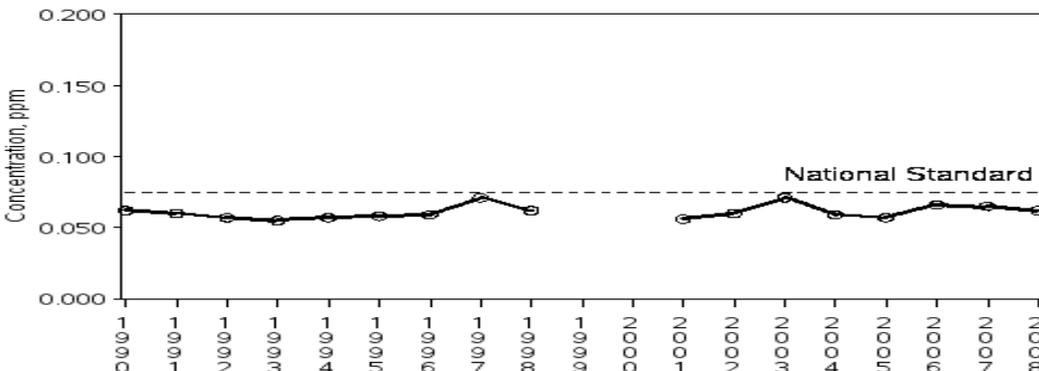
1980 to 2008 : 25% decrease in National Average

The two graphs below illustrate monitored ground level ozone levels in Billings, MT and McKenzie County, ND. Ozone levels at both locations are below the national standard and are trending down.

**Ozone Air Quality, 1990 - 2008**  
 (Based on Annual 4th Maximum 8-Hour Average)  
 Billings, MT  
 SITE=301110086 POC=1

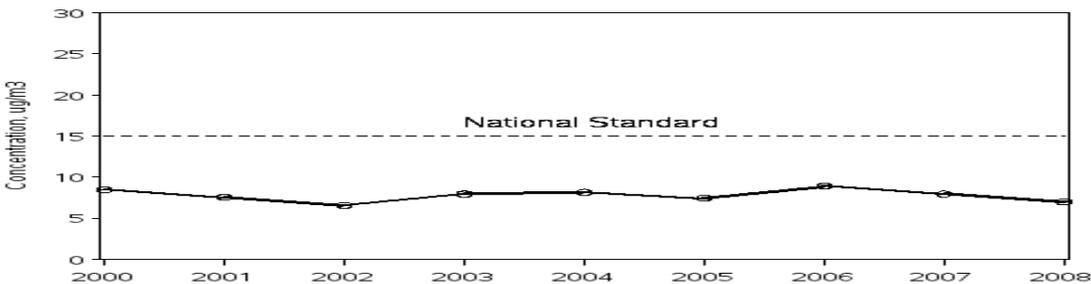


**Ozone Air Quality, 1990 - 2008**  
 (Based on Annual 4th Maximum 8-Hour Average)  
 McKenzie County  
 SITE=380530002 POC=1

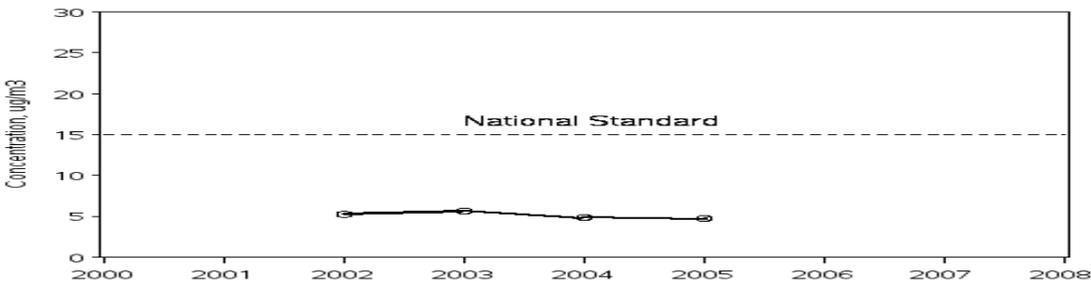


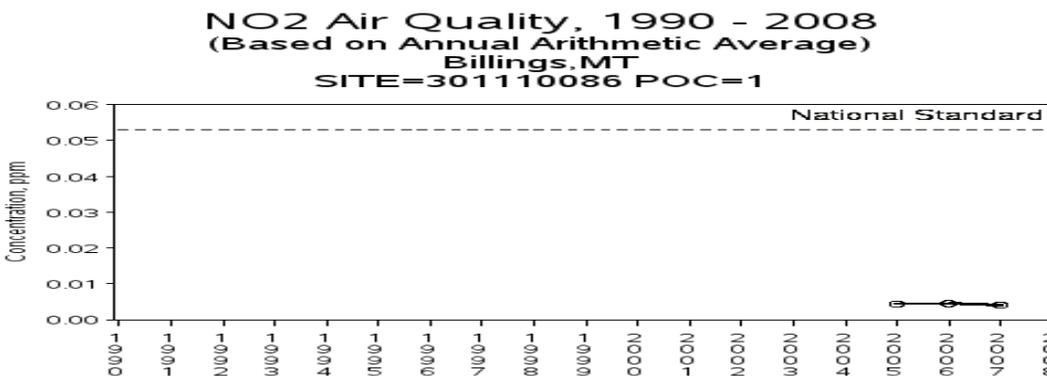
The WELC’s protest also cites NAAQSs for other criteria pollutants including Particulate Matter (PM) and Nitrogen Dioxide (NO<sub>2</sub>). As indicated in the graphs below, levels of these criteria pollutants within the project areas are well below national standards (data found at <http://www.epa.gov/airtrends/index.html>). The maximum potential level of development through implementation of Alternative B with applicable mitigation outlined in Chapter 4 of the Oil and Gas Leasing EAs is expected to maintain this level of air quality, and would not elevate levels of these criteria pollutants above the applicable NAAQS.

**PM2.5 Air Quality, 2000 - 2008**  
 (Based on Seasonally-Weighted Annual Average)  
 Billings, MT  
 SITE=301111065 POC=1



**PM2.5 Air Quality, 2000 - 2008**  
 (Based on Seasonally-Weighted Annual Average)  
 McKenzie County  
 SITE=380530002 POC=1





Utilizing the best currently available data, the BLM has determined that implementation of Alternative B would not have significant direct, indirect, or cumulative impacts on air quality.

**H. The WELC contends that GAO Report 11-34, Federal Oil and Gas Leases: Opportunities Exist to Capture Vented and Flared Natural Gas, Which Would Increase Royalty Payments and Reduce Greenhouse Gases confirms the Original Protest**

The WELC contends that the report provides further evidence that the BLM should not proceed with this lease sale without first taking a proper hard look at GHG pollution from development of the oil and gas leases, and without first considering alternatives to reduce that GHG pollution by including GHG reduction stipulations in the leases.

The WELC points out that the GAO report notes that the BLM intends to update its guidance by the second quarter of 2012. In their opinion, this does not avert BLM's immediate responsibility to comply with Federal law, as outlined in the protest, to ensure that GHG pollution and waste from oil and gas development is addressed prior to the sale and issuance of oil and gas leases. Indeed, as stated in the protest, near term action in the specific, concrete, on-the-ground context of oil and gas leasing decisions could be used to inform broader regulatory and policy initiatives.

**BLM RESPONSE:** The BLM is in receipt of the subject GAO report. The subject GAO report does not expand upon or provide additional information beyond that already contained within the original protest. The BLM concurred (GAO Report, Appendix II) with all five of the recommendations made by the GAO and agreed to incorporate the recommended actions in a new Onshore Order to improve the completeness and accuracy of our data and help address limitations in current regulations. When that Order is approved, all requirements in that Order, as well as other regulatory BLM guidance, will be adhered to by the BLM. Until that time, the BLM will follow the current regulatory framework.

#### **IV. CONCLUSION**

In conclusion, WELC requested that the BLM cancel the December 9, 2010 lease sale pending completion of an EIS which considers alternatives to reduce GHG pollution, takes a hard look at

methane waste and climate change impacts, and air quality issues. The WELC requested that the BLM advise prospective lessees that the lease sale is under protest, and that the BLM stay issuance of the leases pending resolution of any litigation. Further, the WELC requested that if the BLM issues leases, the BLM suspend all activities and operations pertaining to those leases, including lessee unitization and other drilling agreements, pending resolution of any litigation.

For the reasons stated above, the BLM denies this Protest and WELC's requested relief. The BLM notified potential bidders of the protest at the December 9, 2010 lease sale. The BLM, in accordance with existing regulations and policies, will issue leases for all the lands, receiving competitive bids or noncompetitive offers, included on the December 9, 2010 Oil and Gas Lease Sale Notice, as amended. The BLM also denies WELC's request to suspend all activities and operations pertaining to leases issued.

### **Administrative Review and Appeal**

This Decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4 (Enclosure 3) and the enclosed Form 1842-1 (Enclosure 4). If an appeal is taken, the Notice of Appeal must be filed in the Montana State Office at the above address within 30 days from receipt of this Decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition for a stay pursuant to 43 CFR Part 4, Subpart B § 4.21, during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay must show sufficient justification based on the standards listed below. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

#### **Standards for Obtaining a Stay**

Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall be evaluated 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 immediate and irreparable harm if the stay is not granted; and
4. Whether the public interest favors granting the stay.

Copies of the Notice of Appeal, Petition for Stay, and any statement of reasons, written arguments or briefs must also be submitted to each party named in this Decision and to the Office of the Solicitor at the address shown on Form 1842-1 at the same time the original documents are filed in this office. Below is a list of the parties who purchased the subject parcels at the December 9, 2010 lease sale and, therefore, must be served with a copy of any Notice of Appeal, Petition for Stay, and statement of reasons.

In case of an appeal, the adverse parties to be served are listed below:

Access Resources Inc., 5 Par Cir., Littleton, CO 80123  
 Blanca Peak Energy LLC, PO Box 5936, Edmond, OK 73083-5936  
 Continental Resource Inc., PO Box 1032, Enid, OK 73702  
 DEP Mineral Services Inc., 155 W. Harvard St., Ste. 101, Fort Collins, CO 80525  
 Diamond Resources Co., PO Box 1938, Williston, ND 58802  
 Divide Resources, 19 36th St. W., Ste. 3, Billings, MT 59102  
 EOG Resources Inc., 600 17th St., Ste. 1000N, Denver, CO 80202  
 G.G. Rose LLC, 6730 N. Scottsdale Rd., Ste. 270, Scottsdale, AZ 85253  
 Harvey Minerals LP, 3811 Turtle Creek Blvd., #2150, Dallas, TX 75219  
 Intervention Energy LLC, PO Box 1028, Minot, ND 58702  
 KDM Petromanagement LLC, PO Box 2455, Bismarck, ND 58502  
 Lodgepole Land Services, 1763 Moffit Gulch Rd., Bozeman, MT 59715  
 Marshall & Winston Inc., PO Box 50880, Midland, TX 79710-0880  
 Northern Oil & Gas Inc., 315 Manitoba Ave., Ste. 200, Wayzata, MN 55391  
 Petrogulf Corporation, 518 17th St., Ste. 1525, Denver, CO 80202  
 Petro-Hunt LLC, PO Box 935, Bismarck, ND 58502  
 Pillar Energy LLC, PO Box 935, Bismarck, ND 58502  
 Robert E. Zimmerman, Jr., PO Box 570174, Houston, TX 77257  
 URSA Resources Group LLC, 602 Sawyer St, Ste 710, Houston, TX 77007  
 Wes State Lands Inc., 301 Thelma Drive, Suite 412, Casper, Wyoming 82609  
 XTO Energy Inc., 810 Houston St., Fort Worth, TX 76102  
 Yates Petroleum, 105 S. 4th St., Artesia, NM 88210  
 Zone Exploration, Inc., P.O. Box 1362, Billings, Montana 59103

/s/ Jamie E. Connell

Jamie E. Connell  
 State Director

#### 4 Enclosures

- 1-Protest (without exhibits) Received November 23, 2010 (22 pp)
- 2-Protest supplement (without exhibits) Received December 1, 2010 (3 pp)
- 3-43 CFR 4.21(a) (2 pp)
- 4-Form 1842-1 (1 p)

cc: (w/enclosures) to adverse parties listed above.