

**ENVIRONMENTAL ASSESSMENT  
ADDENDUM**

**United States Bureau of Indian Affairs**

**Great Plains Regional Office  
Aberdeen, South Dakota**



**Kodiak Oil & Gas (USA) Inc.**

**Addendum to Drill  
an Additional  
Four Exploratory Wells at Two Locations:**

**Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H  
Two Shields Butte 3-24-12H and Skunk Creek 3-24-25H**

**Fort Berthold Indian Reservation**

**November 2009**

For information contact:  
Bureau of Indian Affairs, Great Plains Regional Office  
Division of Environment, Safety and Cultural Resource Management  
115 4th Avenue SE  
Aberdeen, South Dakota 57401  
605-226-7656

## **Finding of No Significant Impact**

### **Kodiak Oil & Gas (USA) Inc. - (Kodiak)**

#### **Addendum to Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H Two Shields Butte 3-24-12H and Skunk Creek 3-24-25H**

#### **Fort Berthold Indian Reservation Dunn County North Dakota**

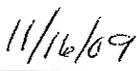
The U.S. Bureau of Indian Affairs (BIA) has received a proposal for an addendum to four exploratory oil/gas wells, access roads and related infrastructure on the Fort Berthold Indian Reservation to be located in Section 24, Township 149N, Range 93W, 5<sup>th</sup> P.M. Associated federal actions by BIA include determinations of effect regarding cultural resources, approvals of leases, rights-of-way and easements, and a positive recommendation to the Bureau of Land Management regarding the Applications for Permit to Drill.

Potential of the proposed actions to impact the human environment is analyzed in the attached addendum to an existing Environmental Assessment (EA), as required by the National Environmental Policy Act. Based on the recently completed addendum to the EA, I have determined that the proposed projects will not significantly affect the quality of the human environment. No Environmental Impact Statement is required for any portion of the proposed activities.

This determination is based on the following factors:

1. Agency and public involvement was solicited and environmental issues related to the proposal were identified.
2. Protective and prudent measures were designed to minimize impacts to air, water, soil, vegetation, wetlands, wildlife, public safety, water resources, and cultural resources. The remaining potential for impacts was disclosed for both the proposed actions and the No Action alternative.
3. Guidance from the U.S. Fish and Wildlife Service has been fully considered regarding wildlife impacts, particularly in regard to threatened or endangered species.
4. The proposed actions are designed to avoid adverse effects to historic, archaeological, cultural and traditional properties, sites and practices. Compliance with the procedures of the National Historic Preservation Act is complete.
5. Environmental justice was fully considered.
6. Cumulative effects to the environment are either mitigated or minimal.
7. No regulatory requirements have been waived or require compensatory mitigation measures.
8. The proposed projects will improve the socio-economic condition of the affected Indian community.

  
\_\_\_\_\_  
Regional Director

  
\_\_\_\_\_  
Date

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## **1. Purpose and Need for the Proposed Actions**

The Bureau of Indian Affairs issued a Finding of No Significant Impact (FONSI) on August 31, 2009, regarding Kodiak's Environmental Assessment for eight Bakken exploratory wells at four locations. In that document, Kodiak proposed to drill eight exploratory oil and gas wells, from four surface locations, on the Fort Berthold Indian Reservation to evaluate and possibly develop the commercial potential of natural resources. Developments have been proposed on land held in trust by the United States in Dunn County, North Dakota. The BIA is the surface management agency for potentially affected tribal lands and individual allotments. The BIA also holds title to subsurface mineral rights. The economic development of available resources and associated BIA actions are consistent with BIA's general mission. Leasing and development of mineral resources offer substantial economic benefits to both the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation and to individual tribal members.

The purpose of the proposed actions is to authorize a total of four additional wells to be drilled from two of the previously approved surface locations, as further described in Section 3 of this document. Also, the purpose of the proposed actions is to authorize additional surface disturbance (of approximately 2 acres per well pad) to accommodate the added wells and related equipment, as further described in Section 4 of this document.

## **2. Authorities**

Oil and gas exploration and development activities are conducted under authority of the Indian Mineral Leasing Act of 1938 (25 United States Code [USC] 396a, *et seq.*), the Indian Mineral Development Act of 1982 (25 USC 2101, *et seq.*), and the Energy Policy Act of 2005 (42 USC 15801, *et seq.*).

## **3. Legal Land Descriptions of Proposed Actions**

The Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H wells have a surface location in the NW $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 24, T149N, R93W. Currently these two wells are spaced 50' apart on the same surface pad. In the case that Kodiak drills two additional wells from this pad, for a total of four wells from one pad, the wells will be spaced approximately 30' apart. The proposed wellbores and spacing units are shown in Figure 1.

The Two Shields Butte 3-24-12H and Skunk Creek 3-24-25H wells have a surface location in the NE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 24, T149N, R93W. Currently these two wells are spaced 50' apart on the same surface pad. In the case that Kodiak drills two additional wells from this pad, for a total of four wells from one pad, the wells will be spaced approximately 30' apart. The proposed wellbores and spacing units are shown in Figure 2.

## **4. Scope of Work for Proposed Actions**

Kodiak proposes to drill up to four exploratory wells from each of two surface locations in Section 24, T149N, R93W. This revision to existing pad layouts and the proposed addition of two wells to each pad is illustrated in Figure 3. In order to accommodate the addition of two more wells to each well pad, Kodiak is requesting approval of additional surface disturbance, due to an expanded pad size from 350' x 550' to approximately 450' x 600'. The added area is needed to accommodate the two additional wells and related equipment. This would result in an increase from approximately 5 acres to approximately 7 acres of surface disturbance for each of the two well pads. The roadwork will remain as previously approved.

## **5. Applicable National Environmental Policy Act (NEPA) Document(s)**

Environmental Assessment: Kodiak Eight Bakken Exploratory Wells at Four Locations. August 2009.

## 6. NEPA Adequacy Criteria

This document has identified a previously prepared NEPA document, *Environmental Assessment: Kodiak Eight Bakken Exploratory Wells at Four Locations (August 2009)*, which adequately describes the environmental consequences of the newly proposed actions described herein, and meets the following NEPA Adequacy Criteria:

1. The proposed actions are substantially the same actions and at the sites specifically analyzed in the existing NEPA document.
2. The range of alternatives is reasonable with respect to the current proposed actions in the existing NEPA document, which appropriately considers and analyzes current environmental concerns, interests, and resource values.
3. The analysis and conclusions are adequate in the existing NEPA document. The analysis is still valid in light of new studies or resource assessment information.
4. The methodology and analytical approach used in the existing NEPA document continues to be appropriate for the proposed actions.
5. The direct and indirect impacts of the proposed actions are unchanged from those identified in the existing NEPA document.
6. The cumulative impacts that would result from implementation of the proposed actions are unchanged from those analyzed in the existing NEPA document.

## 7. Cultural Resources

Cultural resource inventories of these well pads and access roads were conducted by personnel of Kadmas, Lee and Jackson, using an intensive pedestrian methodology. For the Two Shields Butte 2-24-12H project approximately 10 acres were intensively inventoried on July 29, 2009 (Harty 2009). No historic properties were located within this project area that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.6) for inclusion on the National Register of Historic Places. As the lead federal agency, and as provided for in 36 CFR 800.5, on the basis of the information provided, BIA reached a determination of **no historic properties affected** for this undertaking. This determination was communicated to the THPO on September 1, 2009, and the THPO concurred on October 6, 2009. For the Two Shields Butte 3-24H project approximately 10 acres were inventoried on July 29, 2009 (Rabe 2009). BIA reached a determination of **no historic properties affected** for this undertaking, which was communicated to the THPO on October 14, 2009. No response was received from the THPO within the allotted 30 day comment period. The project additions covered in this EA Addendum are within the areas covered by these cultural resource inventories.

Harty, Jennifer L.

(2009) Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H Well Pad and Access Road: A Class III Cultural Resource Inventory in Dunn County, North Dakota. KLJ Cultural Resources for Kodiak Oil & Gas Corporation, Denver.

Rabe, Angie M.

(2009) Two Shields Butte 3-24 Well Pad and Access Road: A Class III Cultural Resources Inventory in Dunn County, North Dakota. KLJ Cultural Resources for Kodiak Oil and Gas Corporation, Denver.



## United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E.  
Aberdeen, South Dakota 57401



IN REPLY REFER TO:  
DESCRM  
MC-208

SEP 01 2009

Perry 'No Tears' Brady, THPO  
Mandan, Hidatsa and Arikara Nation  
404 Frontage Road  
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of a dual oil well pad and access road in Dunn County, North Dakota. Approximately 38 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the area depicted in the enclosed report. One previously recorded archaeological site (32DU1391) was located immediately adjacent to the access road which may possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (16 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for this undertaking, as site 32DU1391 will be avoided. Catalogued as **BIA Case Number AAO-1635/FB/09**, the proposed undertaking, location, and project dimensions are described in the following report:

Harty, Jennifer L.  
(2009) Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H Well Pad and Access Road: A Class III Cultural Resource Inventory in Dunn County, North Dakota. KLJ Cultural Resources for Kodiak Oil & Gas, Denver.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosures

cc: Chairman, Three Affiliated Tribes  
Superintendent, Fort Berthold Agency  
Chief, Division of Energy and Environment



**TRIBAL HISTORIC PRESERVATION**

*Mandan Hidatsa Arikara*

Perry 'No Tears' Brady, Director.  
404 Frontage Road,  
New Town, North Dakota 58763  
Ph/701-862-2474 fax/701-862-2490

[pbrady@mhanation.com](mailto:pbrady@mhanation.com)

October 6, 2009

Carson Murdy  
Regional Archeologist  
Bureau of Indian Affairs  
Great Plains Regional Office  
115 Fourth Avenue SE  
Aberdeen, SD, 57401

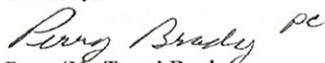
RE: Project # AAO-1635/FB/09  
Two Shields Butte 2-24-12H  
Skunk Creek 2-24-25H well pad and access road

Dr. Murdy:

After review of the documentation provided, the Mandan Hidatsa Arikara Nations Tribal Historic Preservation Office concurs with the determination of 'No Adverse Affect'/No Historic Properties Affected' to any pre and post-historic relics, artifacts or sacred and cultural resources in the revised proposed Project area.

We respectfully request to be notified should any culturally-related issue or others arise as the Project progresses.

Sincerely,

  
Perry 'No Tears' Brady,  
Tribal Historic Preservation Officer,  
Mandan Hidatsa Arikara Nations.



## United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
Great Plains Regional Office  
115 Fourth Avenue S.E.  
Aberdeen, South Dakota 57401



IN REPLY REFER TO:  
DESCRM  
MC-208

OCT 14 2009

Perry 'No Tears' Brady, THPO  
Mandan, Hidatsa and Arikara Nation  
404 Frontage Road  
New Town, North Dakota 58763

Dear Mr. Brady:

We have considered the potential effects on cultural resources of two oil well pads and access roads in Dunn County, North Dakota. Approximately 60.3 acres were intensively inventoried using a pedestrian methodology. Potential surface disturbances are not expected to exceed the areas depicted in the enclosed reports. No historic properties were located that appear to possess the quality of integrity and meet at least one of the criteria (36 CFR 60.4) for inclusion on the National Register of Historic Places. No properties were located that appear to qualify for protection under the American Indian Religious Freedom Act (16 USC 1996).

As the surface management agency, and as provided for in 36 CFR 800.5, we have therefore reached a determination of **no historic properties affected** for these undertakings. Catalogued as **BIA Case Number AAO-1635/FB/09**, the proposed undertakings, locations, and project dimensions are described in the following reports:

Rabe, Angie M.

- (2009) Skunk Creek 12-10-11H Well Pad and Access Road: A Class III Cultural Resources Inventory in Dunn County, North Dakota. KLJ Cultural Resources for Kodiak Oil and Gas Corporation, Denver.
- (2009) Two Shields Butte 3-24 Well Pad and Access Road: A Class III Cultural Resources Inventory in Dunn County, North Dakota. KLJ Cultural Resources for Kodiak Oil and Gas Corporation, Denver.

If your office concurs with this determination, consultation will be completed under the National Historic Preservation Act and its implementing regulations. The Standard Conditions of Compliance will be adhered to.

If you have any questions, please contact Dr. Carson N. Murdy, Regional Archaeologist, at (605) 226-7656.

Sincerely,

Regional Director

Enclosures

cc: Chairman, Three Affiliated Tribes  
Superintendent, Fort Berthold Agency

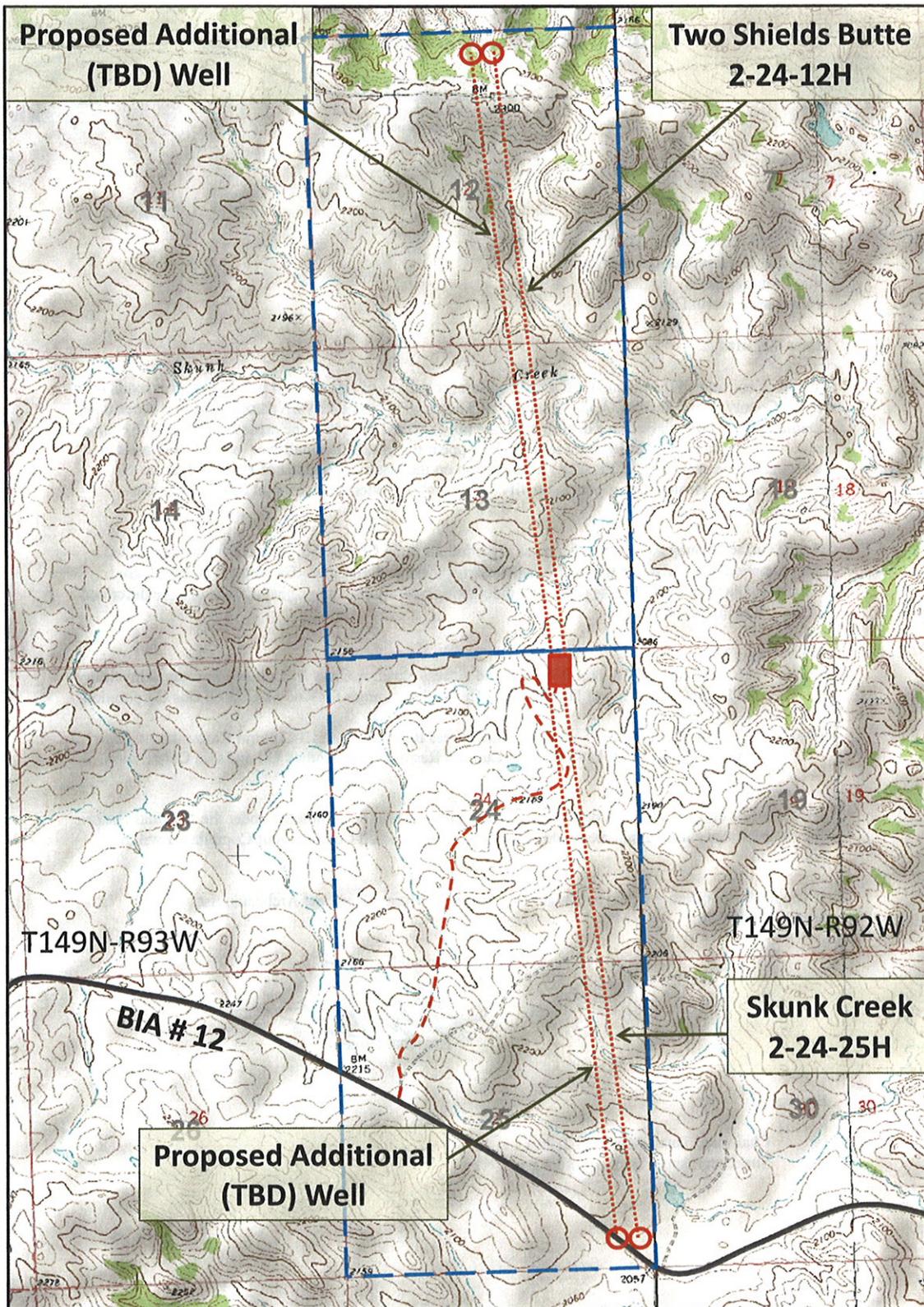


Figure 1: Two Shields Butte 2-24-12H, Skunk Creek 2-24-25H Location Map Schematic with Proposed Additional Wells

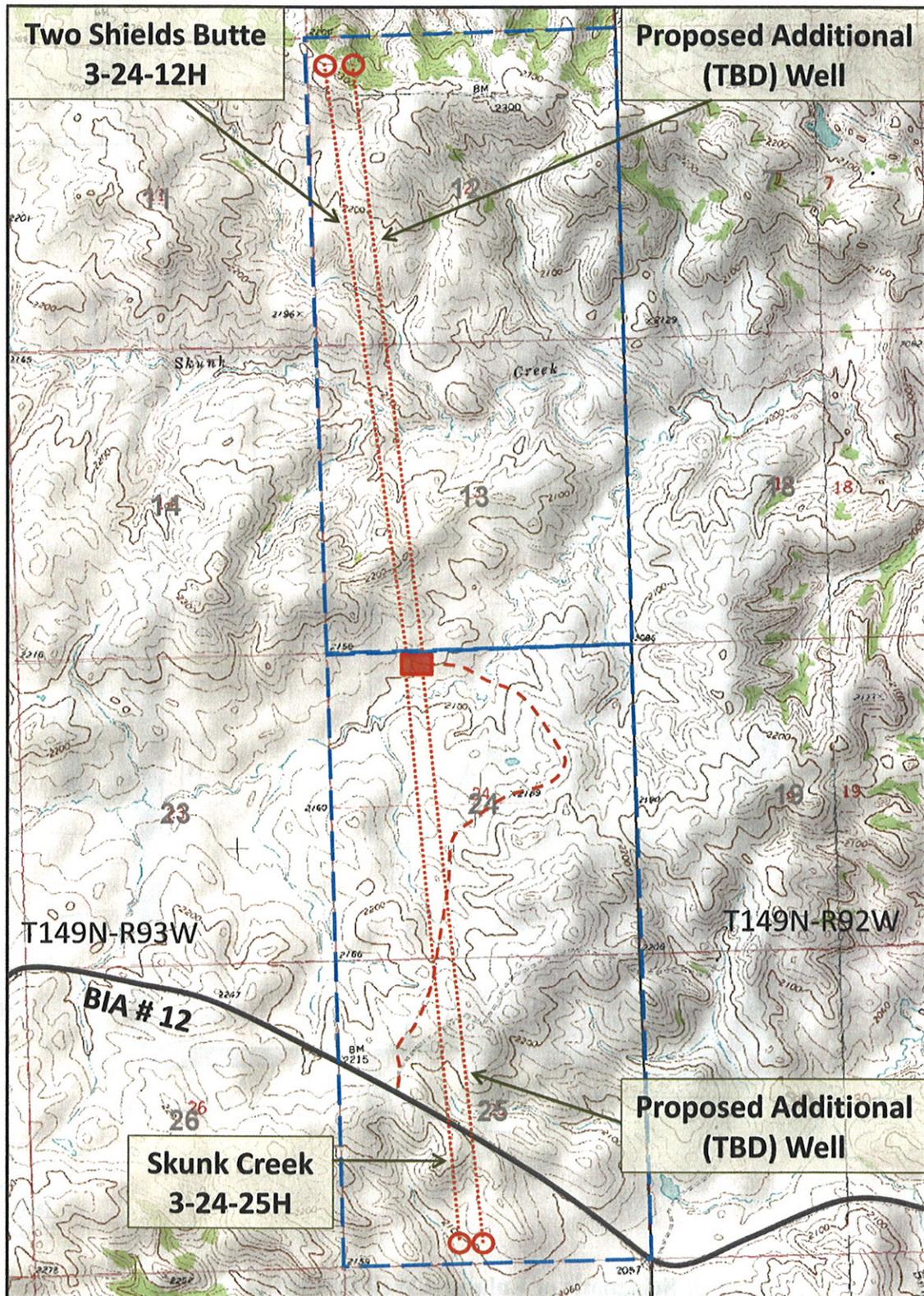


Figure 2: Two Shields Butte 3-24-12H, Skunk Creek 3-24-25H Location Map Schematic with Proposed Additional Wells



# **Notice of Availability and Appeal Rights**

**Addendum to drill an additional Four Exploratory Wells at Two Locations:  
Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H, Two Shields  
Butte 3-24-12H and Skunk Creek 3-24-25H**

**The Bureau of Indian Affairs (BIA) is planning to drill an additional Four Exploratory Wells at Two Locations: Two Shields Butte 2-24-12H and Skunk Creek 2-24-25H Two Shields Butte 3-24-12H and Skunk Creek 3-24-25H as shown on the attached map. Construction by Zenergy is expected to begin in 2009.**

**An environmental assessment (EA) determined that proposed activities will not cause significant impacts to the human environment. An environmental impact statement is not required. Contact Howard Bemer, Superintendent at 701-627-4707 for more information and/or copies of the EA and the Finding of No Significant Impact (FONSI).**

**The FONSI is only a finding on environmental impacts – it is not a decision to proceed with an action and *cannot* be appealed. BIA’s decision to proceed with administrative actions *can* be appealed until December 16, 2009, by contacting:**

**United States Department of the Interior  
Office of Hearings and Appeals  
Interior Board of Indian Appeals  
801 N. Quincy Street, Suite 300, Arlington, Va 22203.**

**Procedural details are available from the BIA Fort Berthold Agency at 701-627-4707.**

Project locations:

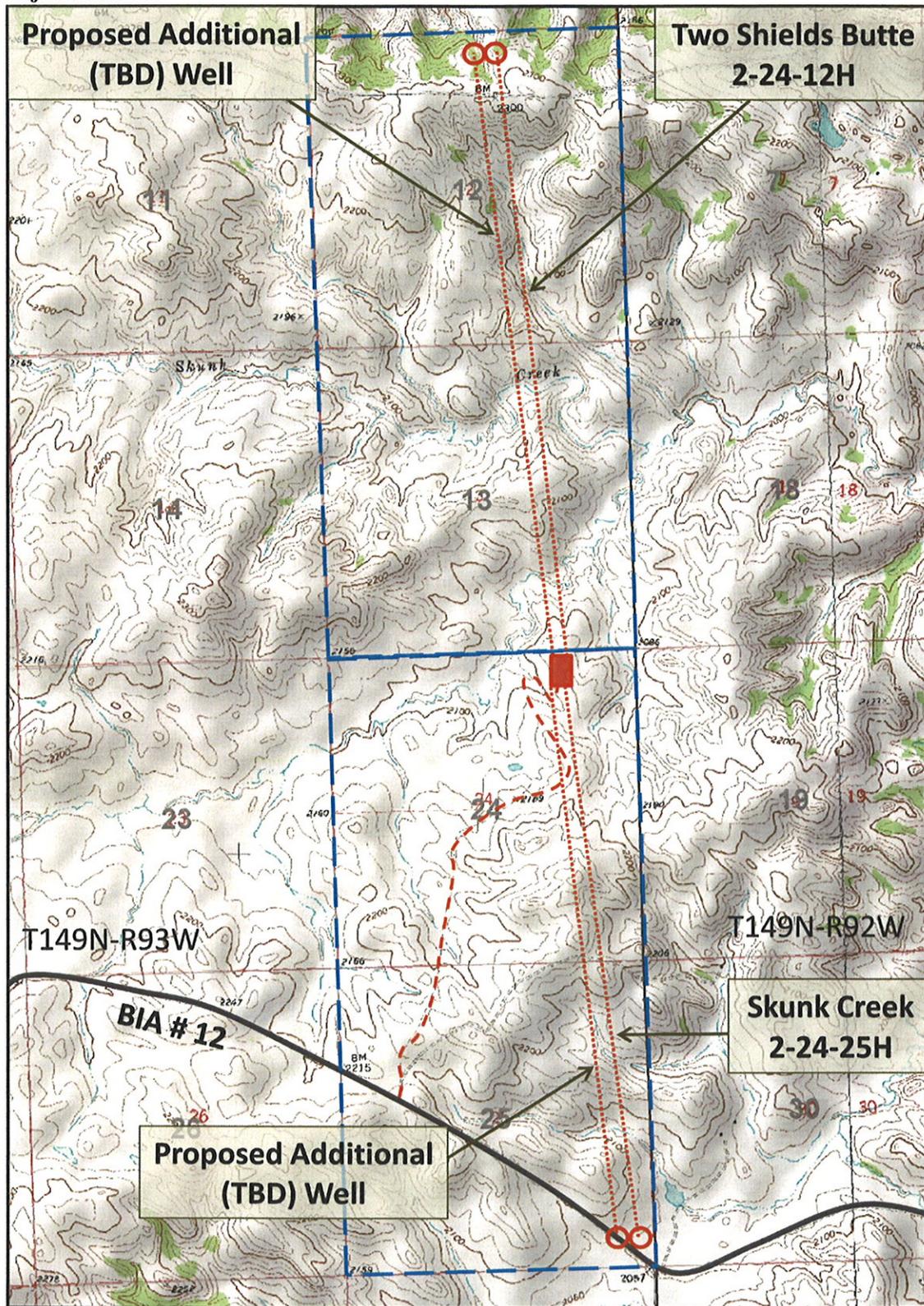


Figure 1: Two Shields Butte 2-24-12H, Skunk Creek 2-24-25H Location Map Schematic with Proposed Additional Wells

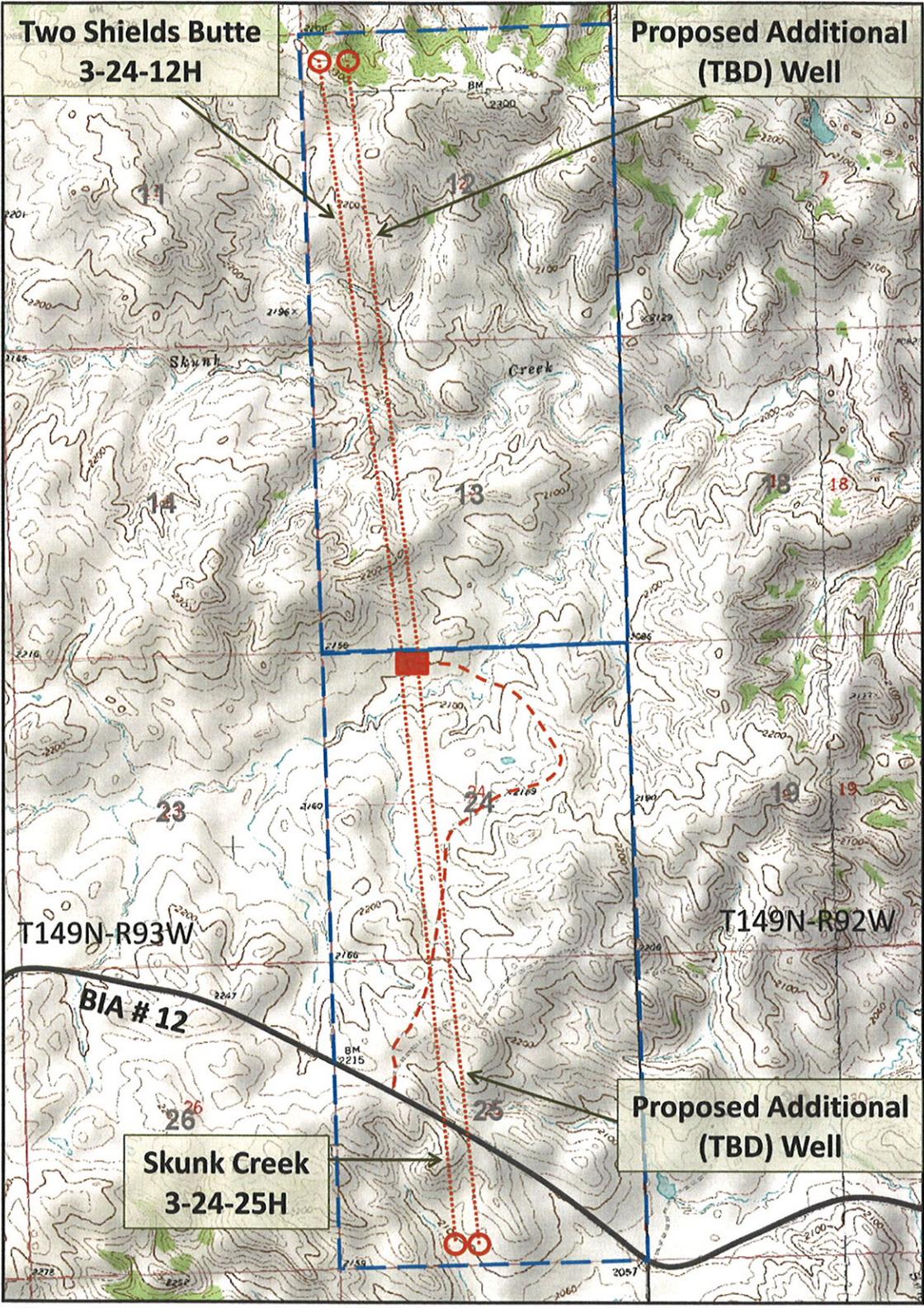


Figure 2: Two Shields Butte 3-24-12H, Skunk Creek 3-24-25H Location Map Schematic with Proposed Additional Wells