

APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 28 November 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENWO-OD-RWY, Black Thunder Mine, North Hilight Amendment, NWO-2008-00775

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Tributaries to Black Thunder Creek (See Table 1 for details of the following resources) Tributary 4, Tributary 5, Tributary 6, Tributary 8 and adjacent wetlands.

State: Wyoming County/parish/borough: Campbell City: n/a
Center coordinates of site (lat/long in degree decimal format): Lat. 43.69414 N; Long. -105.30542 W
Universal Transverse Mercator:

PLSS Location: ~20 square miles in Township 44 North, Ranges 70 and 71 West, 6th PM

Name of nearest waterbody: Black Thunder Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cheyenne River (below the confluence of the Cheyenne River and Beaver Creek in South Dakota)

Name of watershed or Hydrologic Unit Code (HUC): Cottonwood Creek - Black Thunder Creek (HUC 12), Wyoming, 101201030201

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date: 15 November 2012
Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.
Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): 1

- TNWs, including territorial seas
Wetlands adjacent to TNWs
Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
Non-RPWs that flow directly or indirectly into TNWs
Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
Impoundments of jurisdictional waters
Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Pick List

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable): 3

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: The relevant reaches of North Prong Little Thunder Creek and its tributaries; Dry Fork Little Thunder Creek, Mills Draw, Shipley Draw, and one unnamed tributary, have no significant nexus to the Cheyenne River located approximately 135 stream miles downstream.

1 Boxes checked below shall be supported by completing the appropriate sections in Section III below.

2 For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

3 Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. **Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.**

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **71 square miles**
Drainage area: **21 square miles**
Average annual rainfall: **10-15** inches
Average annual snowfall: **n/a** inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through **5** tributaries before entering TNW.

Project waters are **30 (or more)** river miles from TNW.
Project waters are **10-15** river miles from RPW.
Project waters are **30 (or more)** aerial (straight) miles from TNW.
Project waters are **2-5** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: **No**.

Identify flow route to TNW⁵: **The unnamed tributaries flow into Black Thunder Creek. Black Thunder Creek flows into the Cheyenne River. The Cheyenne River flows approximately 72 stream miles to where Beaver Creek flows into it. That confluence, in Fall River County, South Dakota is where the Cheyenne River is a TNW.**

Tributary stream order, if known: **All tributaries have a stream order of 1.**

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: **3** feet
Average depth: **1** feet
Average side slopes: **2:1**.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|---|-----------------------------------|
| <input type="checkbox"/> Silts | <input checked="" type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input checked="" type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain: **No**.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): **1 %**

(c) **Flow:**

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: **The aquatic resource inventory submitted by Thunder Basin Coal Company described the tributaries as dry ephemeral drainages which only flow in response to rainfall, snow melt, or coal-bed natural gas water discharge.**

Other information on duration and volume:

Surface flow is: **Confined**. Characteristics: **Short in duration due to rainfall.**

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

- | | | |
|--|--|--|
| <input type="checkbox"/> Bed and banks | | |
| <input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply): | | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris | |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation | |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line | |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting | |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour | |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events | |
| <input type="checkbox"/> water staining | <input checked="" type="checkbox"/> abrupt change in plant community | |
| <input type="checkbox"/> other (list): | | |

Discontinuous OHWM.⁷ Explain: **Discontinuous due to flat topography with upland unconfined upland swale characteristics at some locations.**

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: **No data available.**

Identify specific pollutants, if known:

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Riparian corridor. Characteristics (type, average width): |
| <input type="checkbox"/> | Wetland fringe. Characteristics: |
| <input type="checkbox"/> | Habitat for: |
| <input type="checkbox"/> | Federally Listed species. Explain findings: |
| <input type="checkbox"/> | Fish/spawn areas. Explain findings: |
| <input type="checkbox"/> | Other environmentally-sensitive species. Explain findings: |
| <input type="checkbox"/> | Aquatic/wildlife diversity. Explain findings: |

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 6 acres

Wetland type. Explain: The wetland delineations within the Black Thunder permit area have identified the following types of wetlands; PEM Marsh, PEM Wet Meadow, and some PAB locations.

Wetland quality. Explain: Unknown.

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: Ephemeral flow. Explain: A description of each tributary was provided in the Aquatic Resource Inventory completed by Knight Technologies, Inc. Each tributary was described as a dry ephemeral drainage.

Surface flow is: Overland sheetflow

Characteristics:

Subsurface flow: Unknown. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are 30 (or more) river miles from TNW.

Project waters are 30 (or more) aerial (straight) miles from TNW.

Flow is from: Wetland to navigable waters.

Estimate approximate location of wetland as within the 2 - 5-year floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: No Data Available.

Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: PEM Wet Meadow /85%

Habitat for:

Federally Listed species. Explain findings: No individuals of the Ute Ladies'-tresses orchid were located during any of the wetland delineations. There are no potential Ute ladies'-tresses habitat identified within the Black Thunder Mine permit area.

Fish/spawn areas. Explain findings: No data available.

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: 20-25

Approximately (Estimated 6 acres along a total stream length of approximately 10.4 stream miles within a drainage area of 21 square miles) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

See Table I

Summarize overall biological, chemical and physical functions being performed: nutrient cycling, sediment transport, flood attenuation, water filtration.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **The relevant reaches of the unnamed tributaries include the entire length of the tributaries. All relevant reaches of the streams being evaluated for a significant nexus have been classified as non-relatively permanent waters based on information prepared by Knight Technologies and provided by Thunder Basin Coal Company.**

All the tributaries flow in to Black Thunder Creek within one mile of the North Hilight Amendment boundary, from the most down stream tributary confluence Black Thunder Creek flows about 70 miles to the confluence with the Cheyenne river which flows approximately 72 miles before it reaches the Beaver Creek confluence in South Dakota. That location is where the Cheyenne River becomes a TNW. The confluence of the Beaver Creek and the Cheyenne River is an estimated 142 stream miles from where the tributaries leave the North Hilight Amendment boundary.

The lower reaches of Black Thunder Creek and the Cheyenne River have much higher flow regimes and well developed abutting and adjacent wetland communities. Any sediment and nutrient contributions transported from the headwaters of the Cottonwood Creek - Black Thunder Creek watershed would have to make it through approximately 142 stream miles of wetlands abutting Black Thunder Creek and the Cheyenne River. Those contributions would have virtually no effect on the Cheyenne River at the Beaver Creek confluence. It would be pure speculation to assume the functions provided by wetlands adjacent to the relevant reaches within the study area would have an effect, positive or negative, on the physical, chemical, or biological integrity of the Cheyenne River where it becomes a TNW.

The Cheyenne River's watershed above Beaver Creek is approximately 5,400 square miles. The drainage area for the 4 unnamed tributaries to Black Thunder Creek is an estimated 21 square miles which is significantly less than one percent of the Cheyenne River watershed. Due to the distance from the relevant reaches to the nearest TNW and the small percentage of the Cheyenne River's watershed the study area comprises, it would be pure speculation to assume the functions provided by the estimated 6 acres of wetlands within the study drainage area would have an effect, positive or negative, on the physical, chemical, or biological integrity of the Cheyenne River at the Beaver Creek confluence. Therefore, the relevant reach of each tributary lacks a significant nexus to the nearest traditionally navigable water.

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
[See Section III.C.2.](#)
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): **54,912** linear feet, **3** width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: **2.810** acres. List type of aquatic resource: **stream channel**.
- Wetlands: **4.839** acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **Black Thunder Mine, North Hilight Amendment Area, Waters of the U.S. Assessment, January 23, 2012..**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **USGS 7.5 minute topographic maps (1:100,000): Reno Junction.**
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **USDA NAIP 2006 and NAIP 2009.**
or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 12 December 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENWO-OD-RWY, Black Thunder Mine, North Hilight Amendment, NWO-2008-00775

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Playa lakes

State: Wyoming

County/parish/borough: Campbell City: n/a

Center coordinates of site (lat/long in degree decimal format): Lat. 43.80238N; Long. -105.29321W

Universal Transverse Mercator:

PLSS Location: ~20 square miles in Township 44 North, Ranges 70 and 71 West, 6th PM

Name of nearest waterbody: Playa Lakes

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: n/a

Name of watershed or Hydrologic Unit Code (HUC): HUC 12: North Prong Little Thunder Creek (101201030302) & Little Thunder Creek (101201030301)

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: 15 November 2012

Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): ¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable): ³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: 21 playa lakes and 1 reservoir are isolated from other surface waters with no connection to interstate commerce.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: 58.616 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Black Thunder Mine, North Hilight Amendment Area, Waters of the U.S. Assessment, January 23, 2012.](#)
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: [USGS 7.5 minute topographic maps \(1:24,000\): Reno Reservoir, Little Thunder Reservoir, Piney Canyon NW, Hilight.](#)
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): [USDA NAIP 2006 and NAIP 2009.](#)
 - Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: [These isolated playas are natural depressions completely surrounded by upland with no evidence of any "continuous surface connection" or flow to other potentially jurisdictional waters. The playa lakes within this region are generally formed by collecting precipitation which is held at the surface by a natural clay layer preventing infiltration. They are not created by exposure of groundwater. The fact these playas exist on mine property with limited access for non-mining activities indicates there is no potential for these areas to \(1\) be used by interstate or foreign travelers for recreational purposes, \(2\) produce fish or shellfish which are or could be taken and sold in interstate or foreign commerce, or \(3\) be used for industrial purposes by industries in interstate commerce.](#)

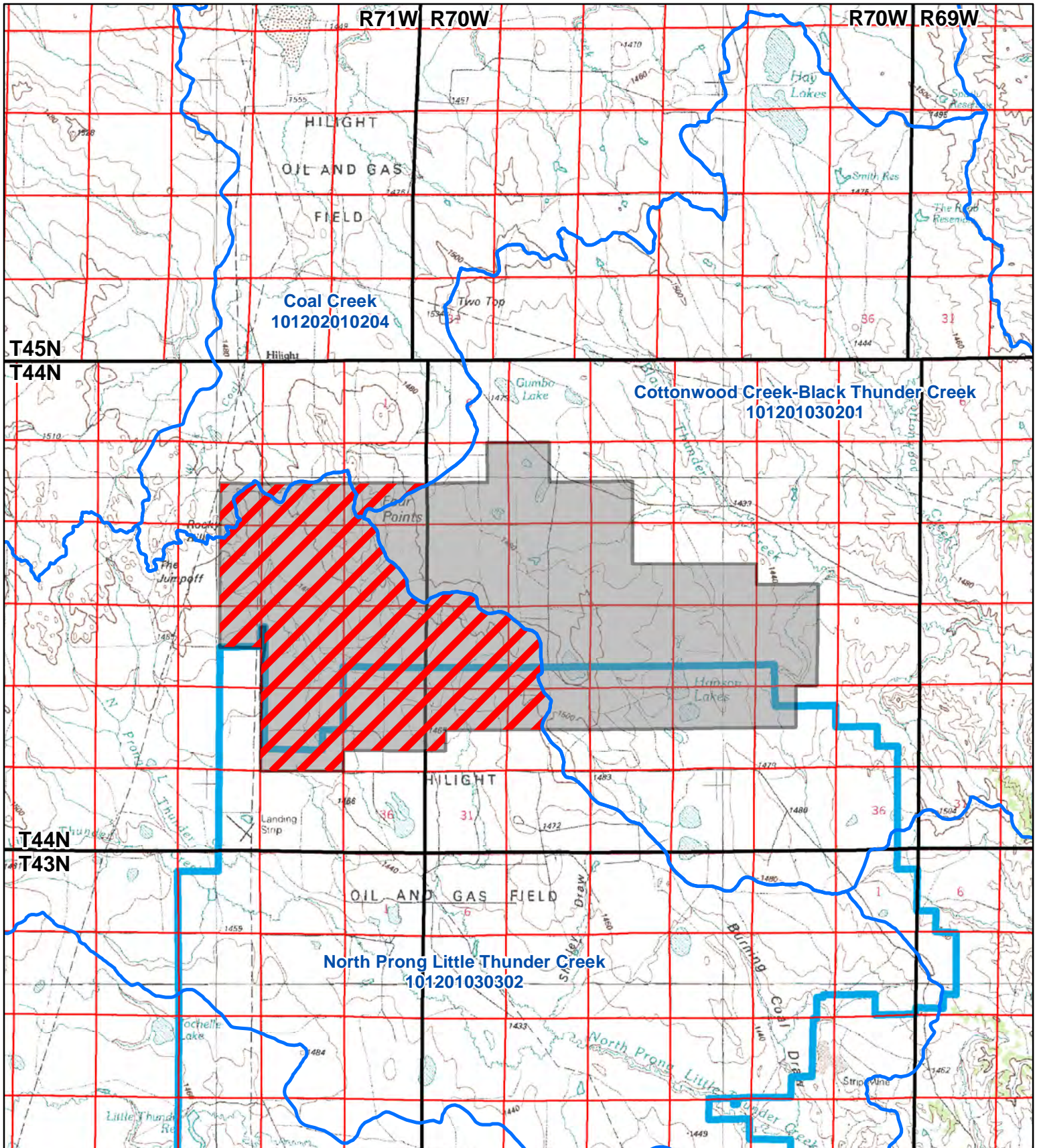
TABLE 1
Black Thunder Mine - North Hilight Amendment Area

ID	Type	Area (Acres)				Tributary
			Sec	TNP	RNG	
Tributaries to Black Thunder Creek						
NHL-23	PEM Wet Meadow	0.009	13	44	71	Tributary 8
NHL-24	PAB Open Water	0.185	18	44	70	Tributary 8
	PEM Wet Meadow	1.528	18	44	70	Tributary 8
NHL-67	PEM Wet Meadow	0.042	23	44	70	Tributary 4
NHL-68	PEM Wet Meadow	0.078	23	44	70	Tributary 4
NHL-70	PEM Wet Meadow	0.173	23	44	70	Tributary 4
NHL-71	PAB Open Water	0.016	23	44	70	Tributary 4
	PEM Wet Meadow	0.065	23	44	70	Tributary 4
NHL-72	PEM Wet Meadow	0.238	23	44	70	Tributary 4
NHL-73	PAB Open Water	0.195	22	44	70	Tributary 4
	PEM Wet Meadow	0.346	22	44	70	Tributary 4
NHL-75	PEM Wet Meadow	0.031	17	44	70	Tributary 6
NHL-76	PEM Marsh	0.009	18	44	70	Tributary 6
	PEM Wet Meadow	0.057	18	44	70	Tributary 6
NHL-77	PEM Wet Meadow	0.019	20	44	70	Tributary 6
NHL-83	PEM Wet Meadow	0.005	16	44	70	Tributary 5
NHL-85	PEM Wet Meadow	0.005	16	44	70	Tributary 5
NHL-86	PEM Wet Meadow	0.045	16	44	70	Tributary 5
NHL-87	PEM Wet Meadow	0.024	9	44	70	Tributary 5
NHL-88	PEM Wet Meadow	0.035	17	44	70	Tributary 6
NHL-89	PAB Open Water	0.162	17	44	70	Tributary 6
	PEM Marsh	0.080	17	44	70	Tributary 6
	PEM Wet Meadow	0.043	17	44	70	Tributary 6
NHL-90	PEM Marsh	0.205	17	44	70	Tributary 6
NHL-91	PEM Wet Meadow	0.034	17	44	70	Tributary 6
NHL-92	OWUS	1.944	17	44	70	Tributary 6
	PEM Wet Meadow	0.152	17	44	70	Tributary 6
NHL-93	PEM Wet Meadow	0.004	17	44	70	Tributary 6
NHL-94	PEM Wet Meadow	0.005	17	44	70	Tributary 6
NHL-95	PEM Wet Meadow	0.003	17	44	70	Tributary 6
NHL-96	PAB Open Water	0.308	17	44	70	Tributary 6
	PEM Marsh	0.245	17	44	70	Tributary 6
	PEM Wet Meadow	1.359	17	44	70	Tributary 6
	Wetland Total	4.839				
	Open Water Total	2.810				

Isolated Waters

Lat Long

NHL-35	Playa	0.102	25	44	71	Isolated	43.76026	-105.32833
NHL-37	Playa	0.001	25	44	71	Isolated	43.75989	-105.32355
NHL-56	Playa	2.859	19	44	70	Isolated	43.78079	-105.31089
NHL-57	Playa	2.895	19	44	70	Isolated	43.77923	-105.30340
NHL-79	Reservoir	0.457	21	44	70	Isolated	43.77943	-105.26650
NHL-80	Playa	11.050	22	44	70	Isolated	43.77360	-105.26026
NHL-81	Playa	0.168	16	44	70	Isolated	43.78400	-105.26096
NHL-82	Playa	0.033	16	44	70	Isolated	43.78586	-105.26646
NHL-98	Playa	7.302	7	44	70	Isolated	43.79813	-105.30436
NHL-100	Playa	16.038	8	44	70	Isolated	43.80260	-105.29351
NHL-101	Playa	4.037	8	44	70	Isolated	43.80725	-105.29734
NHL-102	Playa	3.507	8	44	70	Isolated	43.80924	-105.29732
NHL-103	Playa	1.917	8	44	70	Isolated	43.81045	-105.30158
NHL-104	Playa	0.944	7	44	70	Isolated	43.80892	-105.30676
NHL-105	Playa	0.097	7	44	70	Isolated	43.79914	-105.30903
NHL-106	Playa	0.028	7	44	70	Isolated	43.79733	-105.30683
NHL-108	Playa	2.243	26	44	71	Isolated	43.76137	-105.34632
NHL-109	Playa	4.851	26	44	71	Isolated	43.75761	-105.34718
NHL-118	Playa	0.072	25	44	71	Isolated	43.76027	-105.33185
NHL-119	Playa	0.001	25	44	71	Isolated	43.76488	-105.33965
NHL-120	Playa	0.003	25	44	71	Isolated	43.76459	-105.33317
NHL-121	Playa	0.011	16	44	71	Isolated	43.78515	-105.26278
Isolated Water Total		58.616						



Legend

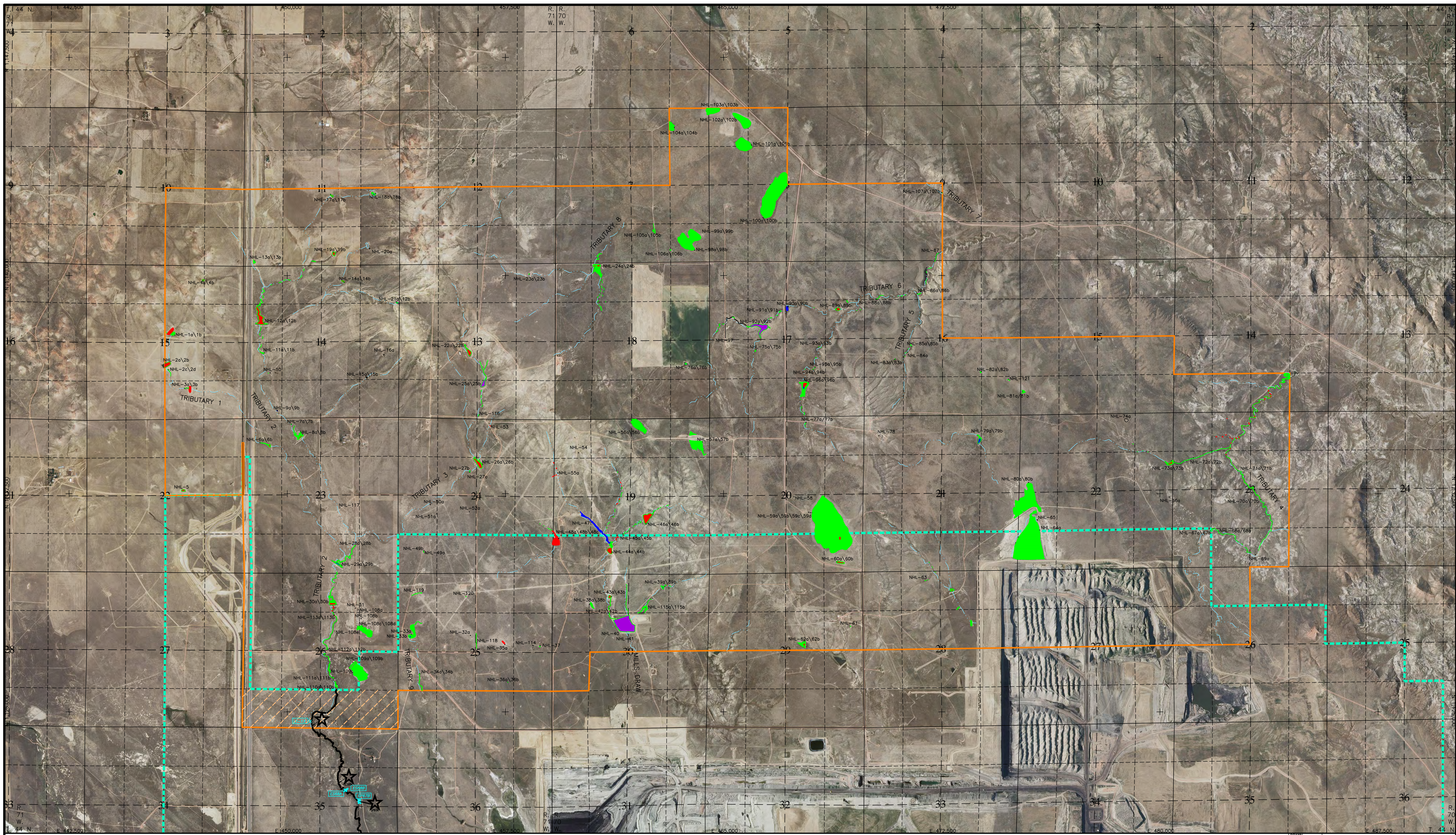
-  HUC_12
-  North Hilight Amendment Area
-  Black Thunder JD Area
-  Black Thunder Permit Area



FIGURE 1

**BLACK THUNDER MINE
NORTH HILIGHT AMENDMENT
APPROVED JURISDICTIONAL DETERMINATION**

**Date November 16, 2012
Scale: 1:100,000**



MAP SOURCE:
 MAP IMAGE: USDA NAIP 2009 FLIGHT DATA
 PLSS: BLM GEOGRAPHIC COORDINATE DATABASE- VERIFIED
 BOUNDARY: RECEIVED FROM CLIENT

MAP PROJECTION:
 NAD27 WYOMING STATE PLANES, EAST ZONE, US FOOT

- NORTH HILIGHT WETLAND WATERS OF THE U.S. (WUS)**
- PALUSTRINE AQUATIC BED (PAB)
 - PALUSTRINE EMERGENT (PEM) MARSH
 - PALUSTRINE EMERGENT (PEM) WET MEADOW
 - PALUSTRINE UNCONSOLIDATED BOTTOM (PUB)
 - OTHER WATERS OF THE U.S. (OWUS)

- NHL-2**
- NORTH HILIGHT SAMPLE POINTS
 - NORTH HILIGHT AMENDMENT AREA
 - 233 PERMIT BOUNDARY
 - DRAINAGE LOCATION (DIGITIZED)
 - ASSESSED BY INTERMOUNTAIN RESOURCES, 2004

- INTERMOUNTAIN RESOURCES WETLANDS INVENTORY 2004 (ADD.D10RV.9)**
- ISOLATED WATERS (NON-JURISDICTIONAL)
 - WETLAND DATA SHEET SAMPLING POINT
 - ★ ISOLATED WATER AREA I.D. NUMBER (NON-JURISDICTIONAL)
- NOTE:
 WETLANDS IDENTIFIED OUTSIDE OF THE PERMIT BOUNDARY ARE SHOWN BUT NOT INCLUDED IN THE DELINEATION.

DRAWN		BY	
DATE	08/07/07	BY	KH
REVISION		BY	
DATE	05/07/09	BY	KH
DATE	07/04/10	BY	KH
DATE	03/04/10	BY	KH
DATE	04/22/11	BY	KH
DATE	11/23/11	BY	KH
DATE	01/23/12	BY	KH

Thunder Basin Coal Company, LLC
 P.O. Box 406 Wright, WY, 82732

**BLACK THUNDER MINE
 NORTH HILIGHT
 AMENDMENT AREA
 WATERS OF THE U.S. (WUS)
 ASSESSMENT 2008**

APPROVED		MAP/D-10RV.17		Campbell County, Wyoming	
DATE	BY	CONTOUR INTERVAL	SCALE	FILE NO.	SHEET NO.
		N/X	1" = 1500'	N/A	1 of 1

FILE NAME: F:\2007-042_BASELINE\NHL\MAPS\NHLIGHT_FIELD