


United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of: POWERTECH USA, INC. (Dewey-Burdock In Situ Uranium Recovery Facility)	
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ENCLOSURE 1

**SUMMARY REPORT REGARDING THE TRIBAL CULTURAL SURVEYS
COMPLETED FOR THE DEWEY-BURDOCK URANIUM IN-SITU
RECOVERY PROJECT**

SUMMARY REPORT REGARDING THE TRIBAL CULTURAL SURVEYS COMPLETED FOR THE DEWEY-BURDOCK URANIUM IN-SITU RECOVERY PROJECT

A. Tribal Cultural Survey Participants

Since 2010, the U.S. Nuclear Regulatory Commission (NRC) staff has been consulting under the National Historic Preservation Act (NHPA) with various Native American Tribes regarding historic sites that may be affected by the proposed Powertech Inc. Dewey-Burdock In-Situ Recovery (ISR) Project.¹ The NRC staff has held three face-to-face meetings and three teleconferences with tribal representatives, and exchanged many emails, letters, and telephone calls.

In December 2012, the NRC staff advised all consulting tribes that the Dewey-Burdock site would be open for interested tribes to conduct on-the-ground surveys in the spring of 2013.²

On February 8, 2013, the NRC staff contacted 23 tribes interested in the proposed Dewey-Burdock ISR Project and invited the 23 tribes to participate in a field survey of the project area for the purpose of identifying properties of religious and cultural significance to tribes. In the spring of 2013, the Dewey-Burdock project site was made available for each consulting tribe to conduct a field identification survey for any historic properties that may have traditional, religious or cultural significance to the tribe. The NRC invited interested tribes to investigate any areas within the 4,282-ha [10,580-ac] Dewey-Burdock license area during the month of April 2013. Financial support was offered for as many as three representatives from each tribe and each tribe was invited to develop and implement its own survey methodology. Tribes were asked to respond to NRC no later than March 12, 2013.

The NRC staff received written or verbal responses from 18 of 23 interested tribes in advance of the March 12, 2013, deadline. Seven tribes expressed interest in the survey offer and were able to participate in the field survey (Northern Cheyenne Tribe, Santee Sioux Tribe, Northern Arapaho Tribe, Turtle Mountain Band of Chippewa Indians, Crow Creek Sioux Tribe, Crow Nation, Cheyenne and Arapaho Tribes of Oklahoma). Five tribes did not reply to the invitation (Omaha Tribe, Lower Sioux Indian Community, Fort Peck Tribes, Eastern Shoshone Tribe, Cheyenne River Sioux Tribe). Six tribes declined to participate in the field survey or stated they were unable to participate due to other commitments, but expressed continued interest in participating in consultation for the project (Three Affiliated Tribes, Lower Brule Tribe, Ponca Tribe, Flandreau Santee Sioux Tribe, Pawnee Nation, Spirit Lake Sioux Tribe). Four tribes declined to participate based on stated concerns about the survey approach (Standing Rock Sioux Tribe, Rosebud Sioux Tribe, Sisseton-Wahpeton Oyate, Yankton Sioux Tribe). The Standing Rock Sioux Tribe specifically stated that survey invitation did not provide or allow for

¹Letter to Tribal Leaders Requesting Additional Information Regarding Tribal Historic and Cultural Resources Potentially Affected by the Powertech Inc. Proposed Dewey-Burdock In-Situ Recovery Facility (March 19, 2010) (ML100331999) <<http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML100331999>>.

²Letter to Tribal Leaders Responding to Comments Received regarding Tribal Survey, Dewey-Burdock ISR project. (December 14, 2013) (ML12335A175) <https://adamsxt.nrc.gov/WorkplaceXT/IBMgetContent?vsId={389C91E7-8786-4A5A-81D1-3CB65331519D}&objectType=document&id={2EE3F8FC-01CC-4C19-9A45-DAB53D64C77E}&objectStoreName=Main.____.Library>.

an appropriate survey methodology. The Rosebud Sioux Tribe stated that it was “*not in favor of the offer as set by Powertech nor is Rosebud interested in conducting a survey on the APE lands solely.*” The Rosebud Sioux Tribe also asked the NRC to publicly acknowledge their decision not to participate. Finally, the Oglala Sioux Tribe initially announced its intention to participate in the April survey, but withdrew its acceptance because the tribal council had not been briefed before the survey was scheduled to begin.

B. Survey Dates and Survey Methods

The Tribal Cultural Survey for the Dewey-Burdock project area was formally initiated on Tuesday, April 2, 2013, with a kick-off meeting near Edgemont, South Dakota led by the NRC staff. Representatives from the Northern Cheyenne Tribe, Crow Nation, Santee Sioux Tribe, Turtle Mountain Band of Chippewa Indians, U.S. Bureau of Land Management (BLM), South Dakota State Historic Preservation Office (SD SHPO), and Powertech USA attended the meeting. The NRC staff welcomed all participants and provided all meeting participants with detailed maps of the entire project area showing the locations of all known archaeological sites, previously disturbed lands, and proposed construction areas. Survey participants were also provided with lists of National Register of Historic Places (NRHP) listed and eligible archaeological sites, archaeological sites with burial locations, and archaeological sites known to include one or more stone features. The NRC staff also distributed written guidance for reporting survey results to the NRC upon completion of the field survey and a written policy statement regarding site confidentiality provided in Attachment 1. The NRC staff also provided participants with copies of the Advisory Council on Historic Preservation (ACHP) regulations “Protection of Historic Properties” (36 CFR Part 800), as well as the U.S. National Park Service National Register Bulletin 38, “Guidelines for Evaluating and Documenting Traditional Cultural Properties”. Kick off meeting participants discussed and accepted the proposed reporting guidance and confidentiality policy. Tribal representatives requested a list of known sites located within the footprint of the proposed construction area. The NRC staff and tribal representatives worked together to compile a list of known archaeological sites using project maps. Tribal representatives used the rest of the meeting as a work session to discuss survey needs and priorities and to develop strategies for implementing the field survey. Four survey priorities were established. Survey efforts would focus on review of (1) known burial sites, (2) areas proposed for ground disturbance, (3) NRHP-listed or eligible sites, and (4) areas with potential to be affected by the proposed land application option. The participating tribes also agreed to collaborate and conduct the survey work as a single team.

The field survey began on April 3, 2013. The NRC reproduced site maps showing the location of stone features identified and recorded by Powertech’s archaeological consultant. These maps were distributed to all members of the survey team for reference during the field investigations. The NRC Section 106 consultant (The Louis Berger Group, Inc.) provided global positioning system (GPS) equipment and two-way radios for daily use by the tribal survey team. This equipment facilitated recording of field discoveries and team logistics, and allowed communication among survey team members, as well as, communication between survey members and Powertech representatives. Powertech provided all vehicle transportation for the survey team within the project area. The NRC staff and its consultant worked with the tribal survey team members on a daily basis throughout the survey period.

The field survey was conducted in two phases between April 2, 2013 and May 23, 2013. A heavy snowfall event on April 9, 2013, forced survey work to be suspended for a few weeks. Survey work resumed on April 30, 2013, and continued through May 23, 2013. A summary of the survey dates and participation by representatives of different tribes is provided in Table 1.

Table 1. Summary of Tribal Cultural Survey Activity and Participation during April–May 2013.

	April 2	April 3	April 4	April 5	April 6	April 7	April 8	April 30	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 14	May 15	May 16	May 23
Northern Cheyenne Tribe	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Santee Sioux Tribe	X	X	X	X			X														
Turtle Mountain Band of Chippewa	X	X	X	X	X		X	X	X	X											
Northern Arapaho Tribe								X	X	X	X	X	X	X	X	X	X				
Cheyenne & Arapaho Tribes of OK								X	X												X
Crow Creek Sioux Tribe								X	X	X			X	X	X	X					
Crow Tribe	X																	X	X	X	

The tribal survey teams were provided access to the entire license area and survey teams examined approximately 95 percent of the entire project area within the license boundary. Areas with open pit uranium mines and spoil piles from past mining activity were toured by vehicle but were not subject to pedestrian survey due to the low potential for locating undisturbed sites. The survey team focused their survey efforts on those portions of the license area that met the four priorities established at the beginning of the survey. Several relatively small parcels situated primarily along the outside margins of the license boundary were also excluded from pedestrian survey. Areas not examined were the following:

- The south-central portion of Section 1 east of the open pit mines {approximately 40.5 ha [100 acres]};
- Portions of Section 10 southwest of Dewey Road and in the northeast quarter of the section {approximately 40.5 ha [100 ac]; outside the limits of proposed disturbance};

- Portions of Section 15 southwest of Dewey Road where pastured livestock were a concern {approximately 61 ha [150 ac]; outside the limits of proposed disturbance; Northern Cheyenne and Turtle Mountain representatives were able to visit two recorded archaeological sites located in this area};
- Portions of Section 21 along the north and east license boundaries {approximately 40.5 ha [100 ac]; outside the limits of proposed disturbance}; and
- Portions of the southeast quarter of Section 31 {approximately 65 ha [160 ac]; outside the limits of proposed disturbance}.

Of these unsurveyed areas, only those portions of Section 1 that were previously disturbed by mining activity will be affected by project construction and operations (i.e., deep disposal wells and potential land application).

The field surveys were directed by survey team personnel who identified survey priorities and selected areas for field survey on a daily basis. Decisions concerning survey priorities were adjusted to wet weather conditions that temporarily limited vehicle access to more remote locations. Access to portions of Sections 29, 30, 31, and 32 was restricted due to the presence of an active bald eagle nest at the start of the survey. Because the survey took place while hatchlings were present in the nest, the project sponsor arranged for a trained biologist to monitor the nest on May 6th, during which time two survey team members from the Northern Arapaho Tribe examined this area. The survey was completed without disrupting the nesting eagles. Generally, the field surveys were conducted using conventional transect survey methods with individual team members following parallel transects across designated survey areas. Transect intervals between individual surveyors were variable and typically ranged anywhere from 20 to 100 m [66 to 328 ft] with surveyors sometimes following a zig-zag-like path along individual transects as a way to improve overall coverage. Transect intervals were varied to accommodate work in areas with dense timber and in steep or deeply dissected terrain where it was either difficult or impossible to maintain visual contact between individual surveyors.

Team members following transect surveys alerted fellow team members when a discovery was made and all or part of the survey team would gather to explore the immediate location of the find. The locations of new discoveries were recorded using GPS equipment capable of recording site locations with sub-meter accuracy. Photographs were taken and descriptive notes were recorded.

Some team members unable to participate in the transect surveys opted to visit previously recorded archaeological sites with priority given to those that included burials and/or stone features. Site maps were used to relocate features of interest to surveyors. Features were flagged for inspection by the rest of the survey team.

C. Summary of Tribal Survey Reports

The NRC staff requested that participating tribes provide NRC with a brief written report summarizing the results of their survey work by June 24, 2013, 30 days after the completion of the field survey. On May 31, 2013, the NRC consultant prepared an updated set of detailed project maps showing the 144 GPS locations recorded by the tribes during the Tribal Cultural Survey. Maps were provided in multiple formats including printed copies of the detailed project

maps used by the survey teams. The NRC also provided map information in pdf format and two electronic formats designed to permit interactive use of both survey data and project information with free software applications available by download from internet websites, namely ArcGIS Explorer (GIS shapefile) and Google Earth (kml. format). These applications allow a user to view map information, but also have the capability of viewing overlapping data sets, including tribal site locations, known archaeological sites, and proposed construction areas. Written instructions were provided to assist users with the download procedures and software applications. The NRC consultant was available to assist tribal reviewers, if needed. A set of 81 captioned photographs showing site locations and features were also provided to all participants.

Tribal concerns about maintaining the confidentiality of site locations, as well as the cultural interpretations or meanings associated with culturally significant sites were accommodated by the NRC. The NRC staff suggested tribes prepare two versions of their reports. One report with a brief summary of the work suitable for public disclosure, but without specific information regarding site locations and cultural interpretation would be submitted. A second confidential report specifically prepared to permit the NRC staff to make formal determinations of NHRP eligibility, pursuant to NRC's federal compliance responsibilities under Section 106 of the NHPA. The NRC requested that the confidential reports include information about site locations, recommendations on the NRHP eligibility of each site, and recommendations for the size of appropriate protective buffers, and other mitigation measures to reduce adverse effects to eligible properties.

All participating tribes requested additional time to prepare their survey reports and the NRC staff agreed to those extensions and offered additional support if needed. The NRC consultant contacted participating tribes after June 24, 2013, to inquire about the status of the report preparation process and offer additional support as needed. Supplemental electronic copies of the May 31, 2013 information package were resent by email to several of the participating tribes.

The NRC staff received detailed written reports with NRHP eligibility recommendations from three of the seven tribes who participated in the tribal cultural survey (Northern Arapaho Tribe, Northern Cheyenne Tribe, Cheyenne and Arapaho Tribes of Oklahoma). The Crow Nation provided the NRC staff with a copy of field notes identifying several sites of interest to that tribe. A brief summary of each tribe's comments and recommendations is provided below. A detailed list of sites identified during the tribal cultural survey with management recommendations is included as Attachment 2. The tribal cultural survey reports and maps with site locations identified during the survey are on file at the NRC and at the respective tribal office of the tribe that prepared the report.

As described above, GPS equipment was used to record the location of 144 places of interest and other new discoveries identified by the survey teams. A descriptive label provided by the survey team was applied to each reading as it was recorded in the field. To track and correlate individual site locations the NRC assigned a unique number to each GPS reading identifying "tribal sites" as TS001, TS002, and so forth. These tribal site numbers are used throughout this summary and the final SEIS, and provide a means to reference specific new discoveries and correlate them to specific tribal comments and recommendations.

Northern Cheyenne Tribe

The Northern Cheyenne Tribe submitted its written report entitled “A Tribal Cultural Survey of the Dewey Burdock Proposed Uranium Mine Permit Area in South Western South Dakota” to the NRC staff on July 25, 2013. The Northern Cheyenne Tribal Historic Preservation Office (THPO) provided written clarification in response to NRC comments on September 17, 2013. The Northern Cheyenne Tribal report included a summary of survey methods, results and NRHP-eligibility recommendations. Tribal Cultural Heritage Forms for 10 specific cultural properties identified or investigated during the survey were attached to the report. Each form contained recommendations on the NRHP-eligibility of each site with reference to the applicable eligibility criteria deemed appropriate by the tribe.

- NHRP recommendations for 10 specific sites visited during the survey: one site (39FA1902) was identified as having no interest for the tribe; three sites (39FA1881, 39FA1926, 39FA1922) were recommended as NRHP-eligible under Criteria A and D; and six sites (39FA1862, 39FA1927, 39FA0096, 39FA3567, 39FA584, NC-1) were recommended as NRHP-eligible under Criterion A and recommended for avoidance (Note: Site NC-1 correlates with Tribal Site 006 as listed in Attachment 2).
- The tribe also recommended that all or portions of some sections of the proposed project area be considered NRHP-eligible under Criterion A and be avoided “because of multiple sites or new discoveries” reported within these portions of the project area.

Northern Arapaho Tribe

The Northern Arapaho Tribal Historic Preservation Office submitted its written report, “Dewey Burdock Project, Custer County, Fall River County, Edgemont, South Dakota” to the NRC staff on June 24, 2013. The THPO provided written responses to NRC requests for additional clarification on August 22, August 24, and September 16, 2013. The report included a description of the project, the project setting, a detailed tribal history, a detailed description of survey activities organized by date and illustrated with maps and photographs, and recommendations for mitigation. The report provides descriptive comments and interpretations for 42 specific sites. Recommendations regarding NHRP-eligibility were provided for four specific site locations, as well as two broader areas of concern.

The Northern Arapaho Tribe recommends that TS047, TS080-089, TS006, and 39CU0584 be considered eligible for listing in the NRHP under criteria A and C and that these areas be avoided. The tribe further recommended specific avoidance zones or buffer zones for these sites ranging in size from 137 m [450 ft] for TS080-089 and 39CU0584 to 0.4 km [0.25 mi] for TS047 and TS006. The tribal report also referenced an area east of TS047 that included culturally significant sites and warranted avoidance. The tribe later clarified this reference on September 16, 2013, stating that two tribal sites were located south, not east of TS047; these are TS040 and TS041/TS042.

- The tribe identified portions of one section within the project site as of particular concern to the tribe, due to the “large number of Traditional Cultural properties” present. The tribe recommends the sites in this area be considered eligible for listing in the NRHP under criteria A and C and that the area be avoided. Avoidance is recommended for

- pedestrian traffic as well as disturbance by heavy machinery. Places of significance include sites 39FA1922, 39FA1923, and 39FA1926 and these sites were expanded with the identification of new features in the tribal survey; these include TS014-TS018, TS067-TS074, TS076-TS078, and TS142-TS143.
- The tribe identified a portion of another section within the site as an area of concern because of the presence of sensitive cultural sites. The tribe recommends these sites be considered eligible for listing in the NRHP under criteria A and C and that the area be avoided. Avoidance is recommended for pedestrian traffic as well as other forms of disturbance. Places of significance include sites 39CU0459, 39CU3600, 39CU3604, 39CU3620 and these sites were expanded with the identification of new features in the tribal survey; these include TS106-TS111, TS114-115 and TS121-TS122.
- Site 39FA1927 is considered to be a modern site and is of no interest to the tribe.

Cheyenne and Arapaho Tribes of Oklahoma

The Cheyenne and Arapaho Tribes of Oklahoma Tribal Historic Preservation Office submitted its written report, "Cheyenne and Arapaho Tribes Report on Dewey-Burdock Survey, June 24, 2013" to the NRC staff on June 24, 2013. The THPO provided verbal responses to NRC's request for additional clarifications on August 22 and September 13, 2013, and a written comment on September 19, 2013. The report included a summary of the survey activities organized by date and supplemented with photographs of site features taken during the field survey.

- The tribe recommended that the Site 39CU3567 be considered eligible for listing in the NRHP under Criterion D, and recommended a 300 m [984 ft] avoidance buffer zone be provided.
- The tribe recommended that TS006 be considered NRHP-eligible under Criterion D with 600 m [1,968 ft] of avoidance buffer. The NRC confirmed with the THPO that a photograph of the feature at TS006 is incorrectly identified as 39FA1902 in the report. TS006 identifies the location of this significant feature.
- The tribe recommended that the stone feature at site TS009 be considered NRHP-eligible under Criterion D and suggested a 300 m [984 ft] buffer zone be established. The report mislabeled the feature as a possible hearth at 39FA0096. The associated photograph is a feature located at TS009. The THPO confirmed this and recommended the feature be considered NRHP-eligible.
- The tribe recommended site 39FA1927 as NRHP-eligible under Criterion D and suggested a buffer of 300 m [984 ft] be established. This site includes three individual cairn features described in the report; three other cairn features were identified as part of this site.

- The tribe recommended that site 39FA1922 be considered not eligible for the NRHP, but asked that the site be protected with a 300 m [984 ft] buffer zone. The tribe recommends site avoidance because of the presence of features recognized as potentially significant to other tribes.
- The tribe noted the location of a possible prayer/offering site in one section of the site. The location was photographed, but no specific site location was recorded. Based on information provided by a tribal elder on September 19, 2013, the THPO amended its report, recommending that the site be considered eligible for listing in the NRHP under Criterion D and recommended that a 300-m [984-ft] protective buffer be established to protect the site. It will be necessary to relocate this site in order to avoid it.
- The tribe refers to a “historic campsite” and recommends that its location be noted as a place of potential interest to other tribes. A conversation with one of the tribe’s survey team members confirms this location corresponds to TS028. An NRHP eligibility recommendation was not made because the site has not been visited by tribal members to evaluate its significance.
- The tribal report also refers to a steep ridge with disturbed rock formations. Based on a conversation with the author of the report, the NRC staff believes this area is adjacent to 39FA1863. No recommendations for NHRP eligibility were provided by the tribe for this area. Several recorded archaeological sites are located on this ridge, which is located outside the license boundary.

Crow Nation

The Crow Nation Tribal Historic Preservation Office submitted its written report, “Crow Tribal Historical Preservation Office, CTHPO, June 26, 2013, Weekly Report” to the NRC staff on June 27, 2013. The report refers to 16 sites identified by two survey representatives. Five sites, 39FA1927, 39FA1922, 39FA1923, 39FA1881, and TS080-089, are of interest to the tribe. Although the NRC assumes the Crow Nation considers the five sites to be culturally significant, the Crow Nation has not provided specific recommendations on their NRHP-eligibility. In addition, no recommendations were made on appropriate treatment of the sites if they were subject to adverse effects.

D. Summary of the Tribal Cultural Survey Findings and Tribal Recommendations

The tribal survey teams identified new artifact discoveries or cultural features of interest to tribes at 24 previously reported archaeological sites as well as 47 other locations representing as many as 71 tribal sites. A number of the 47 new discoveries identified by tribes are situated near the boundaries of known archaeological sites and could reasonably be considered part of those sites if the current archaeological site boundaries were expanded to include them. Other new discoveries are located in close proximity to one another and may be culturally related.

Most of the new discoveries identified in the tribal cultural surveys are described in this report as individual tribal sites. When tribes indicated cultural relationships exist between new discovered features and known archaeological sites or between groups of individual tribal cultural features, this information is provided in the summary in Table 2 and the list of tribal sites in Attachment 2.

Tribal Review of Previously Reported Archaeological Sites

Tribal survey teams recorded 81 cultural features within the boundaries of 24 known archaeological sites. Some of the cultural features recorded by tribal survey teams correspond to features identified in the archaeological surveys; however, many represent new discoveries. Tribal survey teams provided specific recommendations for four (4) archaeological sites that were investigated without identifying new cultural features.

Tribal survey teams collectively recommended that 17 known archaeological sites be considered eligible for listing in the NRHP under one or more eligibility criteria. Tribal recommendations are summarized in Table 2. Sites 39FA0096, 39FA1890, 39FA1862 (outside APE), 39CU3607, 39CU3602, and 39FA1952 were recommended as NRHP-eligible under Criterion A. Sites 39CU0459, 39CU0584, 39CU3600, 39CU3604, 39CU3620, and 39FA1923 were recommended as NRHP-eligible under criteria A and C. Sites 39CU3567, 39FA1881, and 39FA1927 were recommended as NRHP-eligible under criteria A and D. Sites 39FA1922 and 39FA1926 were recommended as NRHP-eligible under criteria A, C, and D.

No sites were specifically classified as “not eligible,” although Site 39FA1902 was specifically identified as being of no interest to the Northern Cheyenne and Northern Arapaho tribes. Site 39FA1902 marks the location of a historic artifact scatter and a possible gravesite; it is likely an historic homestead. Northern Cheyenne and Northern Arapaho representatives examined the possible gravesite and because of the presence of broken concrete among the stones, they determined it was not likely of tribal origin. Survey teams recorded information about their visits to other sites for consideration by the THPOs; however, tribal survey teams did not offer NRHP eligibility recommendations for the other previously recorded archaeological sites.

Tribal Sites: New Discoveries

Forty-seven (47) new discoveries were recorded as a result of the tribal cultural survey. Forty-four (44) of the 47 new discoveries are individual tribal sites or cultural features and were assigned individual survey numbers. Three tribal sites represent cultural features within a single site. For example, 11 GPS readings were taken to record the location of individual stones that make up a single stone feature (TS080-TS089, TS098). Five associated tribal features (TS007-TS011) make up another tribal site. Another cultural feature assigned duplicate survey numbers (TS041 and TS042).

Table 2. Summary of Tribal Recommendations for Recorded Archaeological Sites

South Dakota Site Number	Northern Cheyenne Tribe	Northern Arapaho Tribe	Cheyenne and Arapaho Tribes	Crow Nation
39CU0459	Eligible: A	Eligible: A, C		
39CU0584	Eligible: A	Eligible: A, C		
39CU3567	Eligible: A		Eligible: D	
39CU3600	Eligible: A	Eligible: A, C		
39CU3602	Eligible: A			
39CU3604	Eligible: A	Eligible: A, C		
39CU3607	Eligible: A			
39CU3620		Eligible: A, C		
39FA0096	Eligible: A			
39FA1862	Eligible: A			
39FA1881	Eligible: A, D			Place of Interest
39FA1890	Eligible: A			
39FA1902	No Interest	No Interest		
39FA1922*	Eligible: A, D	Eligible: A, C	Not Eligible	Place of Interest
39FA1923*	Eligible: A	Eligible: A, C		Place of Interest
39FA1926	Eligible: A, D	Eligible: A, C		
39FA1927	Eligible: A	Not Eligible	Eligible: D	Place of Interest
39FA1952	Eligible: A			
*Sites 39FA1922 and 39FA1923 are located on BLM property. All others are on private land.				

Twelve (12) of the 47 newly discovered cultural features were identified outside the license boundary. These features include five (5) discoveries on private land (TS024, TS061, TS062, TS075, TS079), five (5) discoveries on BLM property (TS125, TS126, TS127, TS128, TS129), and two discoveries on U.S. Forest Service (USFS) property (TS106, TS107). Sites TS107 and TS125 were identified as a possible gravesites. TS106 and TS107 were recommended eligible for listing in the NRHP under criteria A and C. No eligibility recommendations were provided for the other 10 cultural features or sites.

Thirty-five (35) of the 47 new discoveries were identified within the project's license boundary. Ten (10) of these tribal sites were recommended as NRHP-eligible under one or more eligibility criteria. TS002, TS118, and TS120 were recommended as eligible under Criterion A. TS145 is recommended as eligible under Criterion D. TS007-011 is recommended as eligible under Criteria A and D. TS040, TS041-TS042, TS047, and TS080-T089, TS098 are recommended as eligible under Criteria A and C. TS006, a gravesite, is recommended as eligible under Criteria A, C, and D.

NRHP recommendations were not provided for 25 of the 35 new discoveries recorded within the project license boundary (TS003, TS005, TS023, TS028, TS030, TS036, TS037, TS048, TS049, TS050, TS051, TS052, TS063, TS064, TS065, TS066, TS090, TS091, TS092, TS093, TS094, TS095, TS097, TS131, TS144). These features include isolated artifact finds, animal bone concentrations, stone circles, cairns, and possible fasting sites. TS023, TS048, TS049, TS050, and TS131 were identified during the field survey as possible gravesites. The NRC recommends avoidance of these sites because these sites may contain human remains, even though tribes may not consider these locations eligible for listing in the NRHP.

NRC's Overall Determinations of Eligibility and Assessments of Effects

The NRC presents its initial NHRP-eligibility determinations and assessments of effects on historic properties and places of religious and cultural significance to tribes in Table 3. The NRC evaluated the results of the tribal cultural survey and the eligibility recommendations provided by the THPOs for the Northern Cheyenne Tribe, the Northern Arapaho Tribe, the Cheyenne and Arapaho Tribes of Oklahoma, and the Crow Nation in making the determinations and assessments. The NRC assessment of effect in Table 3 was determined with regard to the area of potential effect (APE) for facility construction and operations.

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
39CU0251	TS096	Stone circle	Not Eligible	No effect	
39CU0271	TS019 TS035 TS130	Cairn; possible gravesite; earth paint	Eligible Criterion D	No effect	Avoid as possible gravesite
39CU0459	TS108-111	Cairn; stone circle; fasting/prayer circles	Eligible Criteria A, C	No effect	The boundary for 39CU0459 also includes two smaller artifact scatters: 39CU0461 and 39CU0528
39CU0584	TS043-046, TS053, TS132-140	Possible medicine wheel, four directions marker, burial, fasting site, cairns, stone circle, hearth	Eligible Criteria A, C	No effect	Avoid as possible gravesite.
39CU3567	TS031-033, TS141	Three stone circles, scattered hearth	Eligible Criteria A, D	Potential adverse effect (LA)	
39CU3572	TS034	Stone circles; possible medicine wheel	Not eligible	No effect	

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option) (cont.)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
39CU3574	TS021-022	Stone circle, scraper	Not eligible	No effect	
39CU3576	TS020	Tested cobble	Not eligible	No effect	
39CU3584	TS025-027, TS-029	Cairn alignment, stone circle	Not eligible	No effect	
39CU3593	TS055	Cairn	Not eligible	No effect	
9CU3596	TS054	Disturbed	Not eligible	No effect	
39CU3600	TS114-115	Two fasting/prayer circles	Eligible Criteria A, C	No effect	
39CU3602	TS119	Scattered hearth	Eligible Criterion A	No effect	
39CU3604	TS121-122	Fasting/prayer circles	Eligible Criteria A, C	No effect	
39CU3607	TS116-117	Chert core and flake	Eligible Criterion A	No effect	
39CU3620		Cairn, Prayer/ fasting circle	Eligible Criteria A, C	No effect	Partly located on USFS property; possibly associated with TS106 and TS107
39FA0096	TS001, TS004, TS013	Hearth, earth paints	Eligible Criterion A	Potential adverse effect (DDW/LA)	
39FA1862	TS112-113	Stone circles	Not evaluated; Outside APE	No effect	Located outside license boundary
39FA1881		Cairn	Eligible Criteria A, D	No effect	
39FA1890	TS012	Two cairns	Eligible Criterion A	No effect	
39FA1902		Artifact scatter; well/cistern; burial, road	Not eligible	No effect	
39FA1922	TS014-017	Three stone circles, possible medicine wheel	Eligible Criteria A, C, D	No effect	Located on BLM property
39FA1923	TS018, TS142-143	Two cairns	Eligible Criteria A, C	No effect	Located on BLM property
39FA1926	TS067-074, TS076-078	Six stone circles	Eligible Criteria A, C, D	No effect	

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option) (cont.)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
39FA1927		Six cairns	Eligible Criterion A	No effect	
39FA1952	TS123-124	Scattered hearth, flake	Eligible Criterion A	No effect	
39FA1962	TS056-060	Cairn, stone circles	Not eligible	No effect	
39FA1964	TS099-105	Two hearths, alignment, four fasting/prayer circles	Not eligible	No effect	
	TS002	Stone circle	Eligible Criterion A	No effect	
	TS003	Buffalo bones	Not eligible	No effect	Not a cultural site
	TS005	Flake	Not eligible	No effect	Isolated find
	TS006	Cairn	Eligible Criteria A, C, D	No effect	Avoid as gravesite
	TS007-011	Four stone circles, alignment	Eligible Criteria A, D	Potential adverse effect (DDW/LA)	TS007-TS011 are considered a single site
	TS023	Burial	Not eligible	No effect	Avoid as possible gravesite
	TS024	Stone circle	Not evaluated; outside APE	No effect	Outside license boundary
	TS028	Three stone circles; campsite; ceremonial site	Not eligible	No effect	
	TS030	Stone circle	Not eligible	No effect	
	TS036	Small cairn or marker	Not eligible	No effect	
	TS037	Small cairn	Not eligible	No effect	
	TS040	Ceremonial site	Eligible Criteria A, C	No effect	
	TS041-042	Ceremonial site	Eligible Criteria A, C	No effect	
	TS047	Ceremonial site	Eligible Criteria A, C	No effect	
	TS048	Burial	Not eligible	No effect	Avoid as possible gravesite

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option) (cont.)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
	TS049	Burial	Not eligible	No effect	Avoid as possible gravesite
	TS050	Burial	Not eligible	No effect	Avoid as possible gravesite
	TS051	Fasting site	Not eligible	No effect	
	TS052	Stone circle	Not eligible	No effect	
	TS061	Stone circle	Not evaluated; outside APE	No effect	Located just outside license boundary
	TS062	Effigy	Not evaluated; outside APE	No effect	Located 600 m [1,968 ft] outside license boundary
	TS063	No identification	Not eligible	No effect	
	TS064	Stone circle	Not eligible	No effect	
	TS065	Fasting site	Not eligible	No effect	
	TS066	Cairn	Not eligible	No effect	
	TS075	Cairn	Not evaluated; outside APE	No effect	Located 60 m [196 ft] outside license boundary
	TS079	Stone circle	Not evaluated; outside APE	No effect	Located 230 m [754 ft] outside license boundary
	TS080-089, TS098	Alignment and Arc; ceremonial site; pipe ceremony location	Eligible Criteria A, C	Potential adverse effect (DDW/LA)	
	TS090	Cairn	Not eligible	No effect	Located outside but near 39CU3622
	TS091	Ceremonial site	Not eligible	No effect	Located outside but near 39CU3621

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option) (cont.)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
	TS092	Cairn	Not eligible	No effect	
	TS093	Possible cairn	Not eligible	No effect	
	TS094	Cairn	Not eligible	No effect	
	TS095	Disturbed cairn (modern survey marker)	Not eligible	No effect	
	TS097	Cairn	Not eligible	No effect	
	TS106	Fasting circle	Not evaluated; outside APE	No effect	Located on USFS property 40 m [131 ft] outside license boundary. Possibly associated with 39CU3620.
	TS107	Possible gravesite and fasting circle	Not evaluated; outside APE	No effect	Located on USFS property 60 m [196 ft] outside license boundary. Avoid as possible gravesite. Possibly associated with 39CU3620.
	TS118	Hearth	Eligible Criterion A	No effect	
	TS120	Hearth	Eligible Criterion A	Potential adverse effect (DDW.LA)	
	TS125	Burial	Not evaluated; outside APE	No effect	Located on BLM property 60 m [196 ft] outside license boundary

Table 3. NRC Overall Determinations of Eligibility and Assessment of Effects on Historic Properties. (DDW = Deep Disposal Well Option; LA = Land Application Option) (cont.)					
State Site Number	Tribal Survey Number(s)	Tribal Features	NRC's NRHP Determination	Assessment of Effect*	Comments
	TS126	Staff	Not evaluated; outside APE	No effect	Located on BLM property 180 m [590 ft] outside license boundary
	TS127	Fasting site	Not evaluated; outside APE	No effect	Located on BLM property 200 m [656 ft] outside license boundary
	TS128	Fasting site	Not evaluated; outside APE	No effect	Located on BLM property 200 m [656 ft] outside license boundary
	TS129	Fasting site/ring	Not evaluated; outside APE	No effect	Located on BLM property 290 m [951 ft] outside license boundary
	TS131	Possible grave	Not eligible	No effect	Avoid as possible gravesite
	TS144	Cairn	Not eligible	No effect	
	TS145	Prayer/offering location	Eligible Criterion D	Potential adverse effect (DDW/LA)	Site location was not recorded by GPS but is known to be within a 32.4-ha [80-ac] parcel. Would require relocation to assess potential for site avoidance.
*Assessment of effect was determined with regard to the APE for facility construction and operations.					

ATTACHMENT 1

Reporting and Confidentiality

Document for public disclosure.

A brief report summarizing:

- Fieldwork completed
- Brief description of each property.

Maps should show the areas where field survey was performed but should not show specific site locations.

Confidential Report.

Information in the confidential report will be withheld from public disclosure in accordance with Section 304 of the National Historic Preservation Act (see below).

This report should include the following information:

- Site locations (coordinates or plotted on maps)
- Assessment of each property's eligibility for listing in the NRHP. Tribes need not disclose specific information regarding the religious or cultural meaning attached to each property, but should provide a recommendation regarding each site's NRHP eligibility, that refers to one or more criteria for eligibility (Criteria A, B, C, or D), as appropriate.
- Recommendations for protective buffers around eligible sites, and possible mitigation measures.

This information will be reviewed by NRC to identify adverse effects to eligible properties and will not be shared with other consulting parties except to consider alternatives for site avoidance.

After completion of the evaluation process and determination of effect, the NRC will provide the applicant only with location information for affected properties in order to protect, mitigate, or avoid them with recommendations provided by tribes.

The applicant will sign a confidentiality agreement limiting use of this information to appropriate company personnel involved in project design, operations, and land management.

36 CFR Section 304

[16 U.S.C. 470w-3(a) — Confidentiality of the location of sensitive historic resources]

(a) The head of a Federal agency or other public official receiving grant assistance pursuant to this Act, after consultation with the Secretary, shall withhold from disclosure to the public, information about the location, character, or ownership of a historic resource if the Secretary and the agency determine that disclosure may —

- (1) cause a significant invasion of privacy;
- (2) risk harm to the historic resources; or
- (3) impede the use of a traditional religious site by practitioners.

[16 U.S.C. 470w-3(b) — Access Determination]

(b) When the head of a Federal agency or other public official has determined that information should be withheld from the public pursuant to subsection (a) of this section, the Secretary, in consultation with such Federal agency head or official, shall determine who may have access to the information for the purpose of carrying out this Act.

[16 U.S.C. 470w-3(c)—Consultation with the Advisory Council]

(c) When the information in question has been developed in the course of an agency's compliance with section 106 or 110(f) of this Act, the Secretary shall consult with the Council in reaching determinations under subsections (a) and (b) of this section.

ATTACHMENT 2

List of Properties Recorded and Reviewed by the Tribal Cultural Survey

(DDW = Deep Disposal Well Option; LA = Land Application Option)										
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations					Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation			
TS001, TS004, TS013	39FA0096	Hearth, earth paints	Not eligible	Eligible, Criterion A; Avoidance	Reported burial is considered a historic hearth (5/8/2013)			DDW LA	Eligible, Criterion A	Archaeologists recorded 39FA0096 as an occupation site with artifact scatter; nonfarm ruins; dump; and burial
TS002		Stone circle		Avoidance	Stone circle (5/8/2013)			No direct effect	Eligible, Criterion A	
TS003		Buffalo bones		Avoidance				DDW	Not eligible	Not a cultural site
TS005		Flake		Avoidance				DDW	Not eligible	Isolated find
TS006		Cairn		Eligible, Criterion A; Burial—avoidance (referenced in report as NC-1)	Eligible, Criteria A and C; avoidance with "no surface occupation" within 0.4 km [0.25 mi] surrounding the site; burial site, cairns, fasting pit or eagle trap (5/8/2013)	Eligible, Criterion D; avoidance with no less than 600 m [1,968 ft] protective buffer		No Direct Effect	Eligible Criteria A, C, D	Avoid as gravesite

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)										
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations					Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation			
TS007-011		Stone circle, alignment		Avoidance	Unusual alignment and tipi ring; stone circle/fasting site (5/8/2013)	Eligible, Criterion D; avoidance with no less than 300 m [984 ft] protective buffer		No direct effect	Eligible Criteria A, D	TS007-TS011 may be considered a single site
TS012	39FA1890	Two Cairns	Unevaluated	Eligible, Criterion A; avoidance	Two cairns (5/8/2013)			No direct effect	Eligible, Criterion A	ALAC recorded 39FA1890 as artifact scatter and cairn
TS014-017	39FA1922	Three stone circles, possible medicine wheel	Unevaluated	Eligible, Criteria A, D; avoidance	Eligible, Criteria A and C; Avoidance; possible medicine wheel with associated stone circles (4/30/2013)	Not Eligible, but avoid with no less than 300 m [984 ft] buffer	Place of Interest to Tribe; Medicine Wheel and Tipi Ring	No direct effect	Eligible Criteria A, C, D	Located on BLM property; ALAC recorded 39FA1922 as artifact scatter and stone circle
TS018, TS142-143	39FA1923	Two cairns	Unevaluated	Avoidance	Eligible, Criteria A and C; avoidance; cairn (4/30/2013)		Place of Interest to Tribe; Cairn	No Direct Effect	Eligible Criteria A, C	Located on BLM property; archaeologists recorded 39FA1923 as artifact scatter; one cairn may be a modern monument
TS019 TS035 TS130	39CU0271	Cairn; possible gravesite; earth paint	Eligible Criterion D		"Gravesite" (5/2/2013)			No direct effect	Eligible Criterion D	Archaeologists recorded 39CU0271 as occupation site with a hearth feature; avoid as possible gravesite
TS020	39CU3576	Tested cobble	Not eligible					LA	Not eligible	Archaeologists recorded 39CU3576 as artifact scatter

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation		
TS021-022	39CU3574	Stone circle, scraper	Unevaluated		Stone circles (5/2/2013)			No direct effect	Archaeologists recorded 39CU3574 as artifact scatter with hearth feature
TS023		Burial			Identified as possible gravesite (5/2/2013)			No direct effect	Avoid as possible gravesite
TS024		Stone circle						No direct effect	Outside license boundary
TS025-027, TS-029	39CU3584	Cairn alignment, stone circle	Not eligible		Stone circles and alignment of cairns (5/1/2013 and 5/9/2013)			LA	Archaeologists recorded 39CU3584 as artifact scatter and cairn feature
TS028		Three stone circles; campsite; ceremonial site			Three tipi rings; southeast of 39CU3584 (5/1/2013)	Recommend recording location as a point of interest to tribes.		LA	
TS030		Stone circle						LA	
TS031-033, TS141	39CU3567	Three stone circles, scattered hearth	Not eligible	Eligible, Criterion A; avoidance	stone circles, disturbed stone circles, scattered hearth (5/2/2013)	Eligible, Criterion D; avoidance with no less than 300 m [984 ft] protective buffer		LA	Archaeologists recorded 39CU3567 as artifact scatter and stone circle feature
TS034	39CU3572	Stone circles; possible medicine wheel	Not eligible		Several stone rings or possible medicine wheels (5/2/2013)			DDW LA	Archaeologists recorded 39CU3572 as artifact scatter and stone circle feature
TS036		Small cairn or marker						No direct effect	

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes			
TS037		Small cairn					No direct effect	Not eligible	
TS040		Ceremonial site			Stone circles and cairns on ridge (5/2/2013)		No Direct Effect	Eligible, Criteria A, C	
TS041-042		Ceremonial site			Stone circles and cairns on ridge (5/2/2013)		No direct effect	Eligible, Criteria A, C	
TS043-046, TS053, TS132-140	39CU0584	Possible medicine wheel, four directions marker, burial, fasting site, cairns, stone circle, hearth	Eligible	Eligible, Criterion A; avoidance	Eligible, Criteria A and C; avoidance with "no surface occupation" area of 137 m [450 ft] surrounding the site; possible medicine wheel, burial, fasting site, cairns, stone circle, hearth, (5/3/2013 and 5/9/2013)		No direct effect	Eligible, Criteria A, C	Archaeologists recorded 39CU0584 as an occupation site with burial feature; avoid as gravesite

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes			
TS047		Ceremonial site			Eligible, Criteria A and C; Avoidance with "no surface occupation" area of 0.4 km [0.25 mi] surrounding this site; referenced as "ceremonial site on hill in Section 21" (5/2/2013);		No direct effect	Eligible, Criteria A, C	
TS048		Burial					No direct effect	Not eligible	Avoid as possible burial location
TS049		Burial					No direct effect	Not eligible	Avoid as possible burial location
TS050		Burial					No direct effect	Not eligible	Avoid as possible burial location
TS051		Fasting site					No direct effect	Not eligible	
TS052		Stone circle					No direct effect	Not eligible	
TS054	39CU3596	Disturbed	Not eligible				DDW LA	Not eligible	Archaeologists recorded 39CU3596 as an artifact scatter
TS055	39CU3593	Cairn	Not eligible		cairn (5/4/13)		DDW LA	Not eligible	Archaeologists recorded 39CU3593 as an artifact scatter

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation		
TS056-060	39FA1962	Cairn, stone circles	Not eligible		Cairn and disturbed stone circles (5/7/2013); cairn may be a historic marker (5/4/2013)			No direct effect	Archaeologists recorded 39FA1962 as an artifact scatter with a stone circle and cairn
TS061		Stone circle						No direct effect	Located just outside license boundary
TS062		Effigy						No direct effect	Located 600 m [1,968 ft] outside license boundary
TS063		No Identification						No direct effect	
TS064		Stone circle						No direct effect	
TS065		Fasting site			Small cairn (5/5/2013)			No direct effect	
TS066		Cairn						No direct effect	
TS067, TS068-074, TS067-078	39FA1926	Six stone circles	Unevaluated	Eligible, Criteria A, D; avoidance	Eligible, Criteria A and C; avoidance; tipi rings on or near 39FA1926 (5/5/2013)			No direct effect	Archaeologists recorded 39CU1926 as an artifact scatter
TS075		Cairn						No direct effect	Located 60 m [196 ft] outside license boundary
TS079		Stone circle						No direct effect	Located 230 m [754 ft] outside license boundary

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes			
TS080-089, TS098		Alignment and Arc; ceremonial site; pipe ceremony location			Eligible, Criteria A and C; avoidance with "no surface occupation" within 137 m [450 ft] surrounding the site; ceremonial Site: alignment and Arc (5/6/2013 and 5/9/2013)		DDW LA	Eligible Criteria A, C	
TS090		Caim					No direct effect	Not eligible	Located outside but near 39CU3622
TS091		Ceremonial site					No direct effect	Not eligible	Located outside but near 39CU3621
TS092		Caim					No direct effect	Not eligible	
TS093		Possible cairn					DDW LA	Not eligible	
TS094		Caim					DDW LA	Not eligible	
TS095		Disturbed cairn (modern survey marker)					DDW LA	Not eligible	
TS096	39CU0251	Stone Circle	Not eligible				DDW LA	Not eligible	Archaeologists recorded 39CU0251 as an artifact scatter with a hearth feature
TS097		Caim					No direct effect	Not eligible	
TS099-105	39FA1964	Two hearths, alignment, four fasting/prayer circles	Unevaluated		stone circles (5/7/13)		No direct effect	Not eligible	Archaeologists recorded 39FA1964 as an artifact scatter with hearth and cairn features

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)										
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations					Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation			
TS106		Fasting circle		Avoidance	Eligible, Criteria A and C; avoidance			No direct effect	Not evaluated; outside APE	Located on USFS property 40 m [131 ft] outside license boundary; possibly associated with 39CU3620
TS107		Possible gravesite and fasting circle		Avoidance	Eligible, Criteria A and C; avoidance			No direct effect	Not evaluated; outside APE	Located on USFS property 60 m [196 ft] outside license boundary; avoid as possible gravesite; possibly associated with 39CU3620.
TS108-111	39CU0459	Cairn; stone circle; fasting/prayer circles	Unevaluated	Avoidance	Eligible, Criteria A and C; avoidance; cairn and fasting/prayer circles with offerings (5/7/2013)			No direct effect	Eligible Criteria A, C	Archaeologists recorded 39CU0459 as an artifact scatter with a hearth feature; the boundary for 39CU0459 also includes two smaller artifact scatters: 39CU0461 and 39CU0528
TS112-113	39FA1862	Stone circles	Unevaluated	Eligible, Criterion A; avoidance				No direct effect	Not evaluated; outside APE	Archaeologists recorded 39FA1862 as an artifact scatter with a cairn and stone circle; located outside license boundary
TS114-115	39CU3600	Two fasting/prayer circles	Unevaluated	Avoidance	Eligible, Criteria A and C; avoidance; fasting/prayer circles (5/7/2013)			No direct effect	Eligible Criteria A, C	Archaeologists recorded 39CU3600 as an artifact scatter with a stone alignment

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)										
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations					Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation			
TS116-117	39CU3607	Chert core and flake	Not Eligible	Avoidance				No direct effect	Eligible, Criterion A	Archaeologists recorded 39CU3607 as an artifact scatter with a hearth feature
TS118		Hearth		Avoidance				No direct effect	Eligible, Criterion A	
TS119	39CU3602	Scattered hearth	Unevaluated	Avoidance				No direct effect	Eligible, Criterion A	Archaeologists recorded 39CU3602 as an artifact scatter with a hearth feature.
TS120		Hearth		Avoidance				DDW LA	Eligible, Criterion A	
TS121-122	39CU3604	Fasting/prayer circles	Unevaluated	Avoidance	Eligible, Criteria A and C; avoidance; fasting/prayer circles (5/7/2013)			No direct effect	Eligible Criteria A, C	Archaeologists recorded 39CU3604 as an artifact scatter with hearth and stone circle features.
TS123-124	39FA1952	Scattered hearth, flake	Unevaluated	Avoidance				No direct effect	Eligible, Criterion A	Archaeologists recorded 39FA1952 as an artifact scatter with a hearth feature.
TS125		Burial						No direct effect	Not evaluated; outside APE	Located on BLM property 60 m [196 ft] outside license boundary
TS126		Staff						No direct effect	Not evaluated; outside APE	Located on BLM property 180 m [590 ft] outside license boundary
TS127		Fasting site						No direct effect	Not evaluated outside APE	Located on BLM property 200 m [656 ft] outside license boundary

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)									
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination	Comments
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes			
TS128		Fasting site					No direct effect	Not evaluated outside APE	Located on BLM property 200 m [656 ft] outside license boundary
TS129		Fasting site/ring					No direct effect	Not evaluated outside APE	Located on BLM property 290 m [951 ft] outside license boundary
TS131		Possible grave			2 possible gravesites (5/2/13)		No direct effect	Not eligible	Avoid as possible gravesite
TS144		Cairn					DDW/LA	Not eligible	
	39FA1902	Artifact scatter; well/cistern; burial, road	Unevaluated	Historic Grave; No Interest to Tribe	Historic gravesite; not significant to Tribe		LA	Not eligible	
	39FA1881	cairn	Unevaluated	Eligible, Criteria A, D, avoid by 30.5 m [100 ft]			No direct effect	Eligible, Criteria A, D	
	39FA1927	Six cairns	Unevaluated	Eligible, Criterion A; avoidance	Not Eligible; possible sheepherder markers	Eligible Criterion D; avoid with no less than 300 m [984 ft] protective buffer	No direct effect	Eligible, Criterion A	
	39CU3620	Cairn, Prayer/ fasting circle	Unevaluated		Eligible Criteria A and C; cairn and prayer/fasting circle (5/7/2013)		No direct effect	Eligible Criteria A, C	Partly located on USFS property; archaeologists recorded Site 39CU3620 as an artifact scatter with hearth; possibly associated with TS106 and TS107

List of Properties Recorded and Reviewed by the Tribal Cultural Survey (cont'd)

(DDW = Deep Disposal Well Option; LA = Land Application Option)								
Tribal Survey Number	State Site Number	Tribal Features	NRHP/Site Management Recommendations				Potential Direct Effect	NRC's NRHP Determination
			ALAC	Northern Cheyenne	Northern Arapaho	Cheyenne and Arapaho Tribes	Crow Nation	
TS145		Prayer/offering location				Eligible Criterion D; avoid with 300 m [984 ft] protective buffer (4/30/2013)		Eligible Criterion D
<p>Explanatory Note: A total of 144 cultural features or site numbers were recorded using GPS equipment over the course of the survey work. These are TS001 through TS144. Two site numbers (TS038 and TS039) represent test readings and do not correspond to any cultural features. Eighty-one (81) recorded sites correspond to features within the boundaries of 24 previously recorded archaeological sites. The remaining 61 sites correspond to 47 newly discovered cultural features. Duplicate readings were recorded for one newly discovered site (TS041 and TS042). Five (5) associated tribal features (TS007-TS011) make up another tribal site. Eleven (11) GPS readings were taken to record the location of individual stones that make up a single stone feature (TS080-TS089 and TS098). The remaining 44 GPS readings correspond to 44 individual cultural features. TS145 was added when the Cheyenne and Arapaho Tribes identified the location of an additional site not recorded by GPS.</p>								
						Site location was not recorded by GPS but is known to be within a 32.4-ha [80-ac] parcel; would require relocation for avoidance		