



# GREYSTONE®

*Environmental Consultants, Inc.*

February 11, 2003

Greg Miller  
Nebraska State Historical Society  
Historic Preservation Division  
P.O. Box 82554  
Lincoln, Nebraska 68501-2554

**RE: Proposed Evaluative Testing of Site 25DW198, Dawes County, Nebraska, for Crow Butte Resources**

Dear Mr. Miller:

This letter presents a brief plan for evaluative testing for site 25DW198, approximately 1 mile southeast of Crawford, Nebraska. Site 25DW198 was recorded in 1987 by John R. Bozell and Robert E. Pepperl for the Crow Butte Uranium Prospect. The survey was conducted for a mining permit under the jurisdiction of the Nuclear Regulatory Commission. The site was evaluated as potentially eligible based on the presence of sparse subsurface remains, and avoidance was recommended. Crow Butte Resources plans to develop its mining operations in this site area and has asked Greystone Environmental Consultants, Inc (Greystone) to evaluate this site and to determine what additional work may be needed. The following paragraphs briefly describe the site, past work at the site, and the proposed plan for evaluative testing.

## **Background**

In April through June 1987, archaeologists under the direction of John R. Bozell of the Nebraska State Historical Society conducted a cultural resource reconnaissance of a portion of the Commercial Size Area for the proposed Crow Butte In Situ Uranium Mining Project (Bozell and Pepperl 1987). The project involved a permit for in situ solution mining of uranium. The lead federal agency for this undertaking is the Nuclear Regulatory Commission. The inventory of 1,350 acres located and documented 21 cultural resources. The sites included eight Native American sites, 12 Euroamerican sites, and one buried bone deposit. Two of the Euroamerican sites were recommended potentially eligible for the National Register of Historic Places (Register) for their possible architectural importance, and four archaeological sites were recommended potentially eligible for the Register for their potential to yield information important in prehistory. One of the archaeological sites is 25DW198. The site is located about 1 mile southeast of the town of Crawford in T31N, R52W, Section 11 NE/SW/NE/SE and W/SE/NE/SE (Figure 1). Bozell and Pepperl (1987) recommended that mining avoid the potentially eligible resources. It was further recommended that, if it was not feasible to avoid the sites, more intensive documentation must be undertaken to complete National Register evaluation and, if appropriate, recommend data recovery or other mitigative actions.

Site 25DW198 was described as a scatter of chipped stone tools and flaking debris located on the crest of a linear knoll. This knoll is part of a broad upland between English Creek and White Clay Creek southeast of Crawford. The narrative description of the site indicated an area of 30,000 square meters. However, Bozell and Pepperl (1987:57, Figure 18) provided a site plan

that shows a site area of 9,000 square meters. The site location map shows a site area slightly wider, but approximately the same as the plan map. Therefore, this plan assumed that the site plan shows the correct site dimensions as observed in 1987. The site plan has been adapted to show proposed locations of test units for the evaluative subsurface testing (Figure 2).

The inventory of recovered surface material lists a quartz cobble and 43 flakes of silicified wood, quartzite, or chert. Shovel test 1 was excavated to 60 centimeters in arbitrary 15 centimeter levels near the center of the surface scatter. Subsurface materials from this shovel test consisted of an edge fragment of a chert biface and 15 flakes. Most of the artifacts were dispersed through the upper 30 centimeters of the shovel test, and two flakes were found in the 30 to 45 centimeter level. No artifacts were recovered from shovel test 3 in the saddle area south of the site, and one flake was recovered from near the surface in shovel test 2 on the knoll about 160 meters south of the site. Shovel tests 2 and 3 were excavated to 30 centimeters below surface. At least one sterile level was excavated in each shovel test before excavation was stopped. The description of the profile of shovel test 1 did not indicate any discrete subsurface levels that might reflect a buried occupation surface.

### **Plan for Evaluative Testing**

This testing plan proposes resurvey and subsurface evaluative testing of site 25DW198. Greystone proposes to conduct an intensive surface survey of a 20-acre block around the recorded site area, as shown in Figure 2, to update the boundaries of the site. The two-person field crew will walk parallel transects approximately 12 to 15 meters apart and will note the locations of any cultural artifacts or possible features. The site will be remapped using a hand-held mapping-grade global positioning system (GPS) unit (1- to 3-meter accuracy). Four 1- by 1-meter test units will be excavated in arbitrary 10-centimeter levels to a minimum depth of 50 centimeters, or deeper than 50 centimeters until no artifacts are recovered. All excavated material will be screened through ¼-inch hardware cloth. All recovered debitage for each level will be described by material type and debitage category (flake, broken flake, flake fragment, or debris). Formal tools or diagnostic artifacts will be described, drawn to scale and photographed. The recovered artifacts will be returned to the surface owner. A representative profile will be drawn, described, and photographed for each test unit.

Proposed locations for the four test units are three units along the long axis of the recorded site area and one unit in the adjacent saddle (Figure 2). However, the field archaeologists may adjust the locations of the test units, if any artifact concentrations or indications of possible cultural features are found during the survey. All test units will be backfilled to the original surface contours.

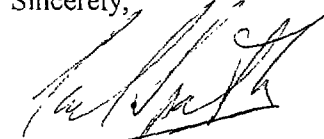
If the results of testing are no different than original survey, the site will be recommended as not eligible for the Register, and no additional cultural resource work will be recommended. That is, if surface materials consist of sparse lithic debitage with no diagnostic artifacts or evidence of possible cultural features, and if subsurface artifacts also consist of sparse lithic debitage with no diagnostic artifacts, no evidence of cultural features, and no indications of possible cultural levels, it will be concluded that the site has no potential to yield information important in prehistory. If, on the other hand, survey and testing yield diagnostic artifacts, evidence of in situ cultural features, or indications that subsurface artifacts may be associated with one or more discrete buried levels, the site will be recommended eligible for the National Register. A data recovery plan will be recommended if the site is considered eligible.

Greg Miller, Nebraska State Historical Society  
February 11, 2003  
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Please advise me if you concur with this scope of work. If you have any questions or require additional materials, please call me at (303) 850-0930.

Sincerely,



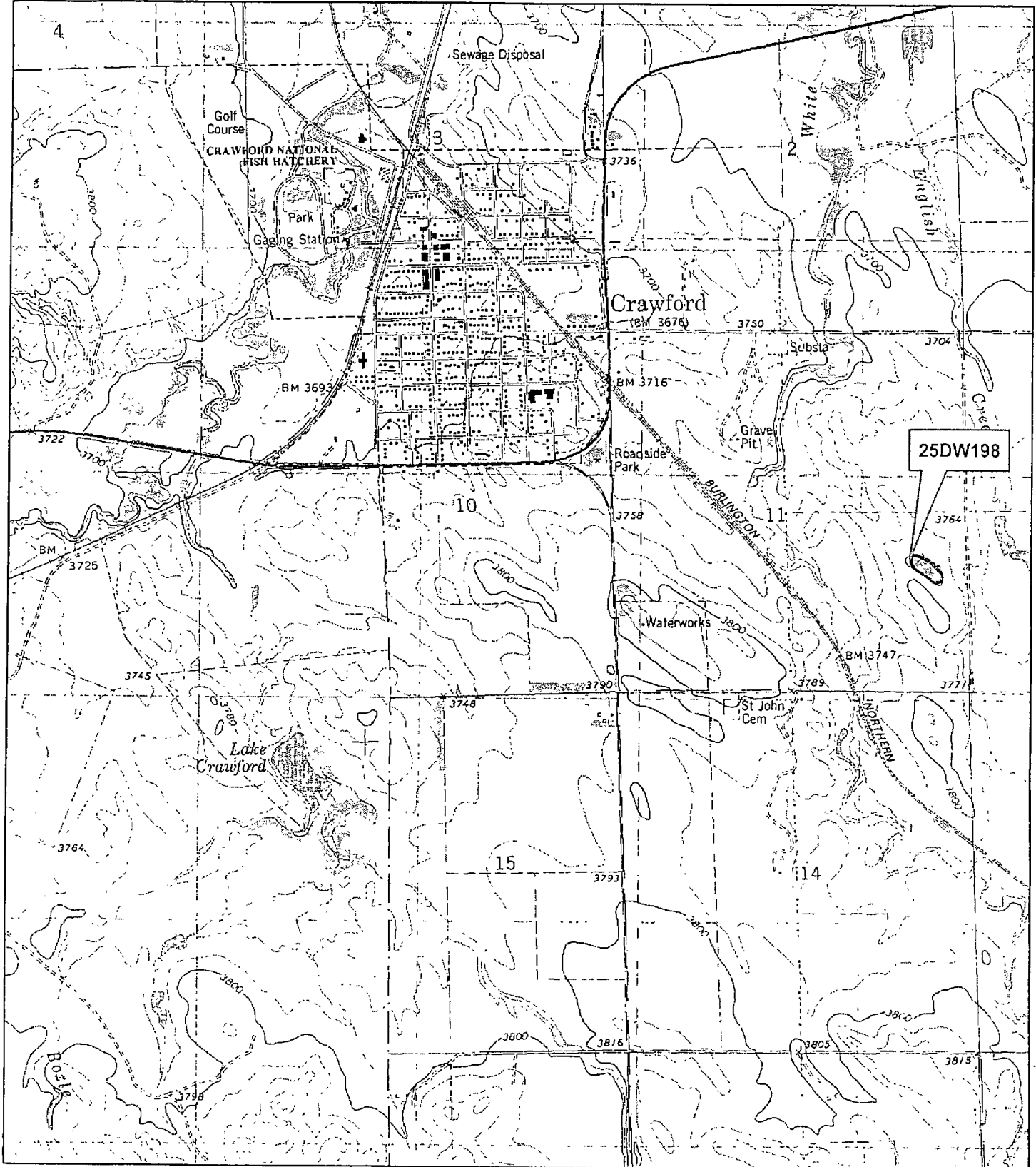
Carl Späth, PhD  
Senior Archaeologist

References Cited:

Bozell, John R., and Robert E. Pepperl. 1987. A Cultural Resources Study of the Crow Butte Uranium Prospect, Dawes County, Nebraska. Nebraska State Historical Society.  
Prepared for Resource Technologies Groups, Inc.

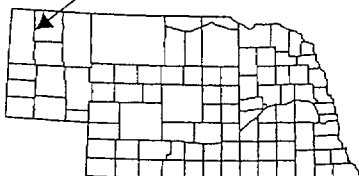
Enclosures

R. 52 W.



Source: USGS 7.5' Quadrangle, Crawford, Nebraska, 1980

Project Location



0 1,000 2,000 Feet

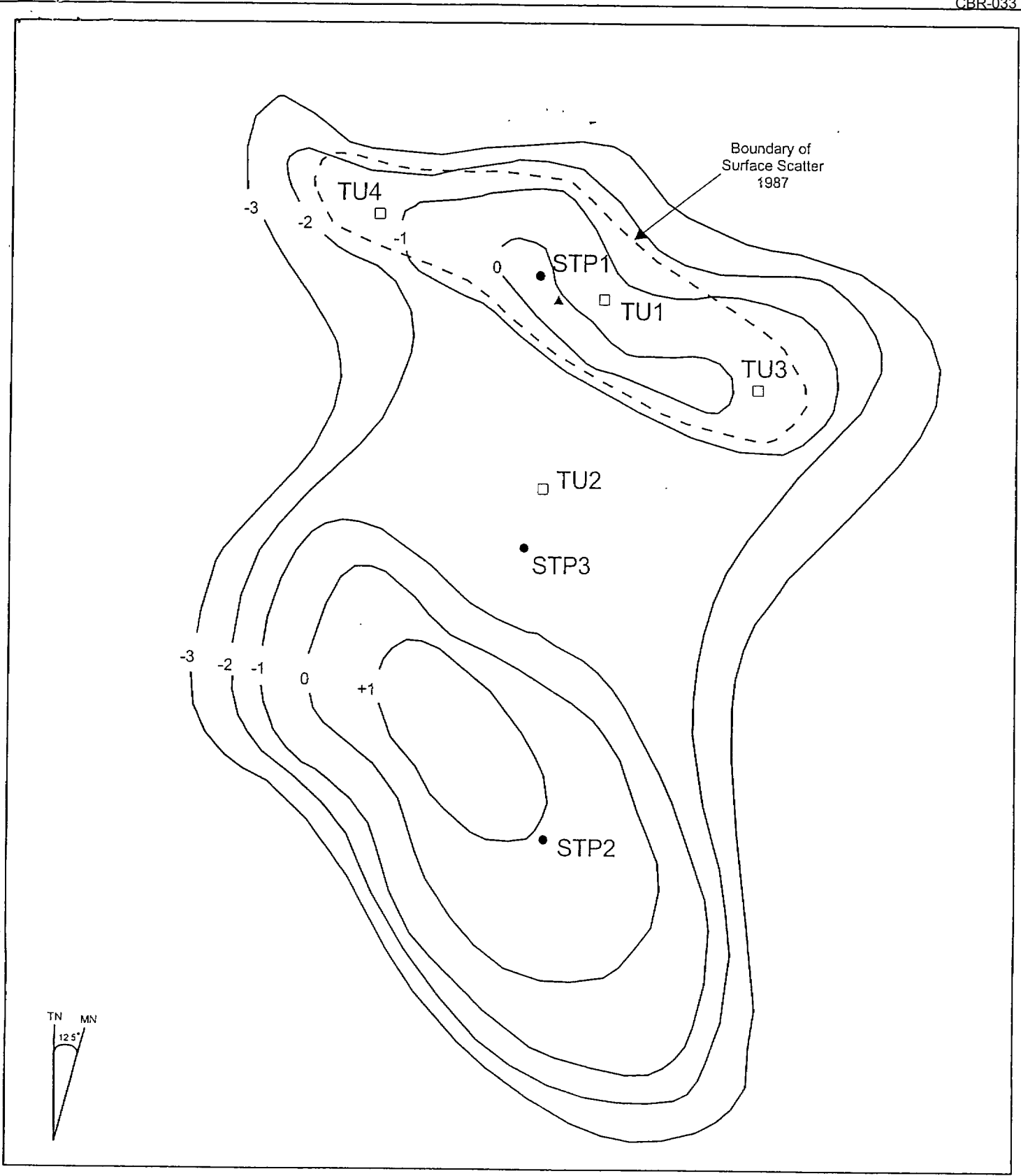
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## SITE LOCATION MAP

Location of Site 25DW198  
Dawes County, Nebraska

Date 2/10/03 File: FIGURE1.MXD  
Drawn By MS Layout: FIGURE 1.PDF

FIGURE 1



**LEGEND**

- STP - 1987 Shovel Test Pit
- TU - Proposed Test Unit
- ▲ - 1987 mapping datum



0 50 Meters

1" = 50m  
1m contour

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**CONTOUR MAP**

Site 25DW198  
Crow Butte Resources

Date: 2/11/03 File: FIGURE2.MXD  
Drawn By: MS Layout: FIGURE 2.PDF

**FIGURE 2**