

EXHIBIT 7

ARCHAEOLOGICAL INFORMATION

- 1) Letter from State Historic Preservation
Officer - August 6, 2021**
- 2) Email from State Historic Preservation
Office - August 20, 2021**
- 3) Report on Archaeological Investigations**
- 4) Letter from Colorado Historical Society**
- 5) Letter from Colorado Historical Society**



Daniel Cunningham
Environmental Protection Specialist
Division of Reclamation, Mining, and Safety
1313 Sherman Street, Room 215
Denver, CO 80203

RE: New Elk Mine (Permit No. C-1981-012) Permit Revision Application No. 5 (PR-5), Permit Revision 5 (HC# 71066)

Dear Mr. Cunningham,

Thank you for your correspondence dated and received by our office on July 7, 2021 requesting review of the above referenced undertaking under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR Part 800.

In accordance with the 1991 Memorandum of Understanding (MOU) between our agencies, because the technical revision may incorporate additional lands into the permit area or might otherwise alter previously approved permit conditions or mitigation measures, concurrence between our agencies is required due to the potential for impacts to cultural and/or historic resources.

The provided documentation notes that the permit revision would result in the expansion of the New Elk Mine's permit boundary by 2,856 acres for the purposes of expanding subsurface mining operations. This has the potential to affect cultural resources through development of infrastructure, temporary use areas, and reclamation activities as well as through reasonably foreseeable effects such as subsidence and ground vibrations. In order to complete our review, we request additional information on the proposed development of the area for mining, temporary use areas (i.e. access roads and staging areas), and potential extent of effects posed by subsidence and ground vibrations. Please provide additional descriptions, maps, designs, and images as necessary to provide us an understanding of the proposed undertaking and the area of potential effects (APE).

An initial review of our records shows that cultural resource specialists have inventoried a dearth of the expanded permit boundary location and that at least one previously recorded historic property (5LA.5925) sits in the APE. A review of previous studies in the region and aerial images shows the potential for previously unidentified cultural remains in the proposed expansion area including archaeological remains. Further, an initial review of historic topographic maps show that the APE may contain previously unidentified historic structures including structures associated with the town of Vigil. Expansion of mining in this area has the potential to affect these types of cultural resources.

Due to the dearth of previous inventory and the potential for previously unidentified cultural resources in the project location, it is our recommendation that a cultural resource inventory be completed by a cultural resource specialist who meets the Secretary of the Interior's Standards prior to construction activities to determine the presence of cultural resources in the APE and to assess the eligibility of any resources for the NRHP. The cultural resource specialist should also evaluate the undertaking's potential effects to historic properties. This level of effort is recommended in accordance with 36 CFR 800.4(b)(1).

A list of qualified contractors that may provide the above services is available on our website: <https://www.historycolorado.org/sites/default/files/media/document/2021/1502%202.25.21.docx.pdf>. Upon completion of the appropriate identification efforts, our office should be provided with the results of the cultural resource inventory for review of professional adequacy and compliance with regulations, as well as to evaluate the appropriateness of the recommended effect finding.



We anticipate further discussion regarding the subject undertaking according to 36 CFR 800.3-800.6. We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for the opportunity to comment. If you have any questions, please contact Matthew Marques, Section 106 Compliance Manager, at (303) 866-4678, or matthew.marques@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer

We are now accepting electronic consultation through our secure file transfer system, MoveIT. Directions for digital submission and registration for MoveIT are available at <https://www.historycolorado.org/submitting-your-data-preservation-programs>.

From: Ebert - DNR, Jared <jared.ebert@state.co.us>

Sent: Friday, August 20, 2021 10:22 AM

To: Nick Mason <nmason@newelkcoal.com>

Subject: Fwd: New Elk Mine (Permit No. C-1981-012) Permit Revision Application No. 5 (PR-5), Permit Revision 5 (HC# 71066)

Good day Nick,

I reached out to SHPO regarding their comment letter and asked for clarification of their request for a cultural resource survey. Please see SHPO's response below.

Also, I am not sure if you are aware but DJ Cunningham has tendered his resignation from DRMS and his last day is August 26th, 2021. For the time being I have assume the responsibilities for the New Elk Mine and the Lorencito Canyon Mine.

Please let me know if you have any questions.

Thanks,

Jared

----- Forwarded message -----

From: Marques - HC, Matthew <matthew.marques@state.co.us>

Date: Fri, Aug 20, 2021 at 9:50 AM

Subject: Re: New Elk Mine (Permit No. C-1981-012) Permit Revision Application No. 5 (PR-5), Permit Revision 5 (HC# 71066)

To: Ebert - DNR, Jared <jared.ebert@state.co.us>

Hi Jared,

Thank you for updating us on the point of contact for this undertaking. I will let our other staff know about the changes for contacts for the New Elk Mine in case other reviewers have questions or projects that they are reviewing. Do you know if DJ was the point of contact for any other permits? From what I can remember, I do not believe so.

As far as the current project, we are happy to review any additional information you can provide regarding the potential for subsidence including any quantitative or qualitative data. It, however, seems that some level of subsidence or vibrations would comprise a reasonably foreseeable effect for the undertaking. Similar types of underground operations have resulted in subsidence that posed impacts to cultural resources including archaeological sites, rock art sites, and historic structures.

It should be noted that the Advisory Council on Historic Preservation (ACHP) has previously commented on effects posed by subsidence in Colorado. The ACHP commented on an undertaking associated with King II Coal Mine noting in response to claims regarding the limited potential for impacts to cultural resources from subsidence that any such claims should be substantiated by data. The ACHP noted that subsidence appears reasonably foreseeable and they "believe subsidence, in general, with or without subsidence cracks, should be considered an effect on historic properties as it may include changes in the relationship of a property to its surroundings, including changes in its surface contours, topography, and erosional patterns. Following the same reasoning it appears that the opening and subsequent refilling of subsidence fractures, if they were to occur, should also be considered at least an effect on archaeological sites."

In addition to subsidence, it seems reasonably foreseeable that surface borings, access roads, ventilation, and potentially additional infrastructure would result from the proposed expansion. Similar features are observed within the current boundaries of the mine and appear to be necessary features for the operation of the mine.

We continue to request the completion of a class III cultural resource inventory considering the potential effects of the undertaking on historic properties, the dearth of previous inventory, and the potential for previously unidentified cultural resources. As mentioned previously, we are open to discussion and reviewing any additional data or information that you could provide that could change our recommendation.

Please let me know if you would like to discuss this over the phone or if you have any additional questions.

Thank you,

On Wed, Aug 18, 2021 at 2:07 PM Ebert - DNR, Jared <jared.ebert@state.co.us> wrote:

Hello Matthew,

I understand you have been working with DJ Cunningham with DRMS on this project and that DJ provided you with some additional information and maps. DJ has resigned his position with DRMS and I will be processing the New Elk Mine permit revision application moving forward. I wanted to get some clarification. New Elk Coal Company's proposal does not include a plan for additional surface disturbance and they are not anticipating subsidence to occur given their method of mining. Based on their proposal, there should not be any surface impact. We are reviewing their plan to confirm that subsidence should not occur and at this point this will likely be the case. Since no additional surface disturbance is proposed or likely to result from subsidence, will a cultural resource survey be necessary as indicated in your comment letter?

Thank you,

Jared

On Fri, Aug 6, 2021 at 3:30 PM Cunningham - DNR, Daniel <daniel.cunningham@state.co.us> wrote:

----- Forwarded message -----

From: **Marques - HC, Matthew** <matthew.marques@state.co.us>

Date: Fri, Aug 6, 2021 at 3:26 PM

Subject: RE: New Elk Mine (Permit No. C-1981-012) Permit Revision Application No. 5 (PR-5), Permit Revision 5 (HC# 71066)

To: Daniel Cunningham - DNR <daniel.cunningham@state.co.us>

Dear Mr. Cunningham,

From: History Colorado, Office of Archaeology and Historic Preservation

Attached is our letter on the subject undertaking in Adobe PDF format.

Please contact me at the below information if you have any questions.

Sincerely,

--

Matthew Marques

Section 106 Compliance Manager

History Colorado | State Historic Preservation Office

303.866.4678 | matthew.marques@state.co.us

1200 Broadway | Denver, Colorado 80203 | HistoryColorado.org

The Office of Archaeology and Historic Preservation is now accepting **electronic submissions** through its secure file transfer system, **MoveIT**. Information and registration for MoveIT is available [here](#). Please continue to contact the appropriate personnel or refer to our [website](#) for guidance on permit related items, file searches, and curation agreements.

Under the Colorado Open Records Act (CORA), all messages sent by or to me on this state-owned email account may be subject to public disclosure

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Respectfully,

Daniel Cunningham

Environmental Protection Specialist



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 303.866.3567 ext. 8126 | F 303.832.8106 |

1313 Sherman St., Room 215, Denver, CO 80203

daniel.cunningham@state.co.us | mining.state.co.us

--
Jared Ebert

Senior Environmental Protection Specialist

***I am working remotely, please feel free to call my cell at (720) 413-6466**



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--
Matthew Marques

Section 106 Compliance Manager

History Colorado | State Historic Preservation Office

303.866.4678 | matthew.marques@state.co.us

1200 Broadway | Denver, Colorado 80203 | HistoryColorado.org

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Jared Ebert

Senior Environmental Protection Specialist

***I am working remotely, please feel free to call my cell at (720) 413-6466**



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REPORT ON ARCHAEOLOGICAL INVESTIGATIONS
IN THE VICINITIES OF THE ALLEN AND MAXWELL MINES,
CF&I STEEL CORPORATION, LAS ANIMAS COUNTY, COLORADO

By John Martin Campbell, Ph.D.

The following report provides information sufficient to satisfy the requirements of the new Federal Office of Surface Mining (Sec. 783.12), and State Mined Land Reclamation Board (Sec. 2.04.4) regulations at the CF&I Steel Corporation Allen and Maxwell Mines, which are situated near the Purgatoire River, and near Colorado State Highway Number 12, about 30 miles west of Trinidad, Colorado.

Investigations at the Allen Mine: As per your instructions I intensively examined twenty-two (22) acres which lie between the Purgatoire River and Colorado State Highway 12, just west of the Allen Mine Headquarters (see enclosed Maps 1 and 2). This locality lies at an elevation of about 7500 feet, above sea level, and slopes gently southward from the above noted highway to the Purgatoire River.

During my investigations in late fall and early winter 1980 the ground surfaces were rather extensively covered with herbs and forbs, and small copses of short "trees". Dominant plant species included Gambel's oak and coyote willow. Other, most notable species included sweet clover, goldenrod, mullein, sunflower, Wood's rose, winter fat, rag sumpweed, Palmer's snowberry, cocklebur, false tarragon, sage, alder, Virginia chokecherry and horsetail.

The bird species observed were: red-tailed hawk, wild turkey, Lewis' woodpecker, dipper, robin and white-crowned sparrow.

Mammals included: racoon, coyote and mule deer. Note. specific Latin names of these plants and animals will be supplied on request.

On this plot of ground the archaeological materials observed were as follows:

(1) Three (3) widely scattered and widely separated quartzsite spalls which had not been retouched, and which were undiagnostic as regards former cultural origin or affiliation.

(2) Six (6) fragments of ungulate long bone which were found eroding from an arroyo bank near the easternmost margin of the locality in question (see Map 2). These fragments occurred two hundred and fifty (250) feet south of Colorado State Highway 12. They protruded from the east side of the arroyo bank, two (2) feet above the bottom of the arroyo, and seven (7) feet below the top of the bank. The bones are too fragmentary to be positively determined, but they may represent Bison, and I feel that this particular location should be further examined before it is covered with tailings or otherwise destroyed.

(3) A rectangular depression whose maximum horizontal dimensions measured five feet six inches (5'6") on an east-west axis, and ten feet six inches (10'6") on a north-south axis. Its average depth was twenty inches (20"), and it occurred sixty-three (63) feet south of Colorado State Highway 12, and six hundred and eighty-four (684) feet west of the tailings pile which lies just east of the easternmost margin of this locality (see Map 2).

This depression almost certainly represents a "cellar hole," and both within it, and in its immediate vicinity a number of ceramic and metal fragments were observed. The ceramic fragments, bottles, crockery, and linament and oil jars date to the period of A.D. 1900-1930, and most probably to A.D. 1910 to 1920. This depression should be excavated by trained archaeologists before it is covered or otherwise destroyed.

Mitigational statement. In my opinion all of the twenty-two (22) acres in question in the vicinity of the Allen Mine Headquarters (see Maps 1 and 2) are to be considered as archaeologically "cleared," except for the locae of the bone fragments, and of the cellar hole, as described above.

Investigations at the Maxwell Mine: As per your instructions I intensively examined twenty (20) acres which lie in the bottom, and on the west side of lowermost Ciruela Canyon adjacent to the Maxwell Mine Headquarters (see enclosed Maps 3 and 4). This locality lies at elevations of about 7110 to 7170 feet above sea level, and most of it slopes abruptly to the southeast.

During my investigations in late fall and early winter 1980 the ground surfaces were sparsely vegetated. The dominant plant was the scattered one-seed juniper. The cattail, Russian thistle and Canadian thistle occupied the narrow canyon bottom which was being watered artificially. Notable species on the above noted steep slope included prickly pear, hedgehog cactus, cory cactus, spanish bayonet, buckwheat, winged buckwheat, stickleaf, winter fat, skunkbush sumac, mullein, canescent aster, groundsel and goldenweed. Most all of these reflect the habitat provided by the sunny, southeast facing canyon side.

Bird species observed were Steller's jay, black-billed magpie and slate-colored junco.

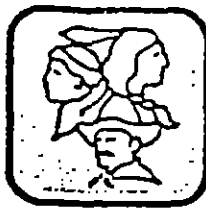
Mammals were bobcat, coyote and American elk. Note. specific Latin names of the above plants and animals will be provided upon request.

On this plot of ground the archaeological materials observed were as follows:

(1) A one-handed milling stone, or mano, and seven (7) quite nondescript quartzite spalls which occurred as a lithic scatter near a sandstone outcrop at an elevation of 7140 to 7150 feet above sea level, and eight hundred and fifty (850) feet west-northwest of the mouth of Ciruela Canyon. The area containing these stones measured about thirty-five (35) feet in maximum horizontal dimension. (See Map 4.) Probably these materials reflect a so-called Archaic occupation, although this

assessment is highly tentative. If they are derived from Archaic cultures they should, in this area, date somewhere in the range of 3000 B.C. to about A.D. 400.

Mitigational Statement: In my opinion all of the above noted twenty (20) acre plot should be considered as archaeologically cleared except for the immediate locality containing the lithic materials mentioned. Further professional testing should be accomplished at this place before it is covered or otherwise destroyed.

COLORADO
HISTORICAL
SOCIETY

Las Animas County

T 33S R67W & 68W Sec 29,23

The Colorado Heritage Center 1300 Broadway Denver, Colorado 80203

Date Received 29 April 1980

Date Responded 13 April 1980

Dear Ms. Wehmanen:

At your request this office has conducted a search of the Colorado Archaeological Site Inventory and the Colorado Inventory of Historic Sites, as well as nominations pending or on the National Register of Historic Places.

The result of this file search is indicated below:

- (X) There are no known (X) Archaeological and/or (X) Historical/Architectural resources in the impact area of the proposed undertaking.
- *() Information regarding previously documented resources in these areas is attached. These resources have not been evaluated for inclusion in the National Register. However, they must be considered to be Eligible for inclusion in the National Register until a formal determination has been completed.
- *() Information regarding cultural resources pending nomination to or on the National Register of Historic Places in the proposed project area is attached.

Our files are incomplete in this area as the vast majority of Colorado has not been inventoried. There is always the possibility that as yet unidentified Cultural Resources exist within the proposed impact area.

Therefore, the federal agency is required to conduct a professional survey to Identify any Eligible Cultural Resources in the proposed project area.

We anticipate consultation with this office regarding the Effect of the proposed project on any Eligible resource in accordance with the Advisory Council Procedures for the Preservation and Protection of Historic and Cultural Resources (36 CFR 800).

Please provide this office with the results of the survey for our review of professional adequacy and compliance.

Arthur C. Townsend
State Historic Preservation Officer

Howard J. Pomerantz
Acting State Archaeologist

*Information regarding significant archaeological resources is excluded from the Freedom of Information Act. Therefore, legal locations of these resources must not be included for public distribution.





COLORADO
HISTORICAL
SOCIETY

CO T R S
LA 33S 68W 14 & 23

The Colorado Heritage Center 1300 Broadway Denver, Colorado 80203

Date Received 1/18/84

Date Responded 1/18/84

At your request this office has conducted a search of the Colorado Inventory of Cultural Resources.

The result of this file search is indicated below:

- [XX] There are no documented cultural properties in the area of impact of the proposed undertaking.
- [] Information* regarding previously documented resources in these areas is attached. These resources have not been evaluated for inclusion in the National Register. However, they must be considered to be Eligible for inclusion in the National Register until a formal determination has been completed.
- [] Information* regarding cultural resources pending nomination to or on the National Register of Historic Places in the proposed project area is attached.

Our files contain incomplete information for this area as the vast majority of Colorado has not been inventoried. There is the possibility that as yet unidentified Cultural Resources exist within the proposed impact area.

Therefore, in the event that there is Federal involvement, we recommend that the federal agency conduct a professional survey to identify any Eligible Cultural Resources in the proposed project area.

We anticipate consultation with this office regarding the Effect of the proposed project on any Eligible resource in accordance with the Advisory Council Procedures for the Preservation and Protection of Historic and Cultural Resources (36 CFR 800).

Please provide this office with the results of the survey for our review of professional adequacy and compliance.

Barbara Sudler
State Historic Preservation Officer

*Information regarding significant archaeological resources is excluded from the Freedom of Information Act. Therefore, legal locations of these resources must not be included for public distribution.



✦ GRAND RIVER INSTITUTE ✦
Cultural Resources Management Consulting

October 7, 2011

J.E. Stover and Associates, Inc.
2352 North 7th Street, Unit B
Grand Junction, CO 81501

Attn: Jim Stover

Re: Class III Cultural Resources Inventory for the RDA #1 Expansion in Las Animas County,
Colorado, for New Elk Coal Company LLC

Dear Jim:

An intensive (pedestrian) inventory was conducted for the 180 acres included in the project area on the 5th and 6th of September 2011. It was noted that about 30 acres of that area was previously disturbed by mine activities. One prehistoric site that is located on the southwest boundary of the project area was newly recorded during the inventory. It is GRI's understanding that the NECC plans to construct a road and excavate some test pits – activities that will occur in the ephemeral channel in the center of the RDA #1 Expansion area. Accordingly, the proposed project will not directly or adversely affect the prehistoric site. Please call me if you have any questions or comments.

Sincerely,

A handwritten signature in cursive script that reads "Carl E. Conner".

Carl Conner
Director

FOR OFFICIAL USE ONLY: DISCLOSURE OF SITE LOCATIONS IS PROHIBITED (43 CFR 7.18)

**CLASS III CULTURAL RESOURCE INVENTORY REPORT
FOR THE
REFUSE DISPOSAL AREA #1 EXPANSION
IN LAS ANIMAS COUNTY, COLORADO
FOR
NEW ELK COAL COMPANY, LLC**

GRI Project No. 2011-90
November 29, 2011

Prepared by

Carl E. Conner and Curtis Martin
with contributions from
Hannah Mills, Barbara Davenport, and Nicole Darnell
Grand River Institute
P.O. Box 3543
Grand Junction, Colorado 81502
State of Colorado Archaeological Permit 2011-71
BLM Antiquities Permit No. C-52775

Submitted to

Colorado Historical Society
Office of Archaeology and Historic Preservation
1200 Broadway
Denver, Colorado 80203

Abstract

At the request of J. E. Stover & Associates, Inc. of Grand Junction, Colorado, Grand River Institute (GRI) was contracted by New Elk Coal Company, LLC (NECC) to complete a Class III cultural resources inventory of a block area of 180 acres for a proposed expansion of a Refuse Disposal Area (RDA) in Las Animas County, Colorado. The project area is situated within the Beaubien and Miranda (Maxwell) Land Grant. The Class III (pedestrian) field work was performed on the 5th and 6th of September 2011 by GRI archaeologist Lucas Piontkowski. Report preparation was conducted by Carl E. Conner (Principal Investigator), Curtis Martin, Hannah Mills, and Barbara Davenport of Grand River Institute under State of Colorado Archaeological Permit 2011-71 and BLM Antiquities Permit No. C-52775.

The purposes of this study were to identify cultural resources within previously unsurveyed areas likely to be affected by the proposed project, to relocate previously recorded sites (if any), to evaluate their eligibility to the National Register of Historic Places (NRHP), and to make recommendations for the sites found to be eligible. For federally funded or licensed projects, such studies are done to meet requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321), Executive Order 11593 (36 F.R. 8921), the Historical and Archaeological Data-Preservation Act (AHPA) of 1974 (16 U.S.C. 469), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701), and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa et seq., as amended).

Literature reviews for known cultural resources in the project area were made through the Colorado Historical Society's Office of Archaeology and Historic Preservation. These indicated that no resources were previously recorded within the project's boundaries. As a result of the survey, one resource was identified and recorded: prehistoric open camp (5LA12859). The site may contain depth of cultural fill and therefore is field evaluated as need data. Site testing is recommended before a final determination of eligibility can be made.

With regard to the presently proposed project, the cultural resource (5LA12859) is located on the ridge to the west of the RDA #1 expansion area and the construction, as proposed, will not affect the site. No further work is recommended.

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Colorado Office of Archaeology and Historic Preservation
CULTURAL RESOURCE SURVEY MANAGEMENT INFORMATION

Please complete this form and attach a copy behind the Table of Contents of each survey report.

Project Class III Cultural Resource Inventory Report for the Refuse Disposal Area #1 Expansion in Las Animas County, Colorado for New Elk Coal Company, LLC. [GRI Project No. 2011-90, 11/29/2011].

Acres of Potential Effect/Project: < 150 **Class III Acres Surveyed:** 180 acres (BLM

Legal Location of Project (add additional pages if necessary)

Principal Meridian: 6th Quad map date(s): 1971 Quad Map(s) Names: Vigil

Township: 33 South Range: 68 West Section: Un-sectioned

	Smithsonian Number	Resource Type				Eligibility				Management					Recommendation Other (specify)	
		Prehistoric	Historical	Paleontological	Unknown	Eligible	Not Eligible	Need Data	Contributes to National Register	No Further Work	Preserve	Monitor	Test	Excavate		Archival Research
Sites	5LA12859	X						X					X			Avoided
	Total Sites	1						1					1			
Isolated Finds	None															
Principal Investigator Name: <u>Carl E. Conner</u>																
Signature: <u>Carl E. Conner</u> Date: <u>11/29/2011</u>																

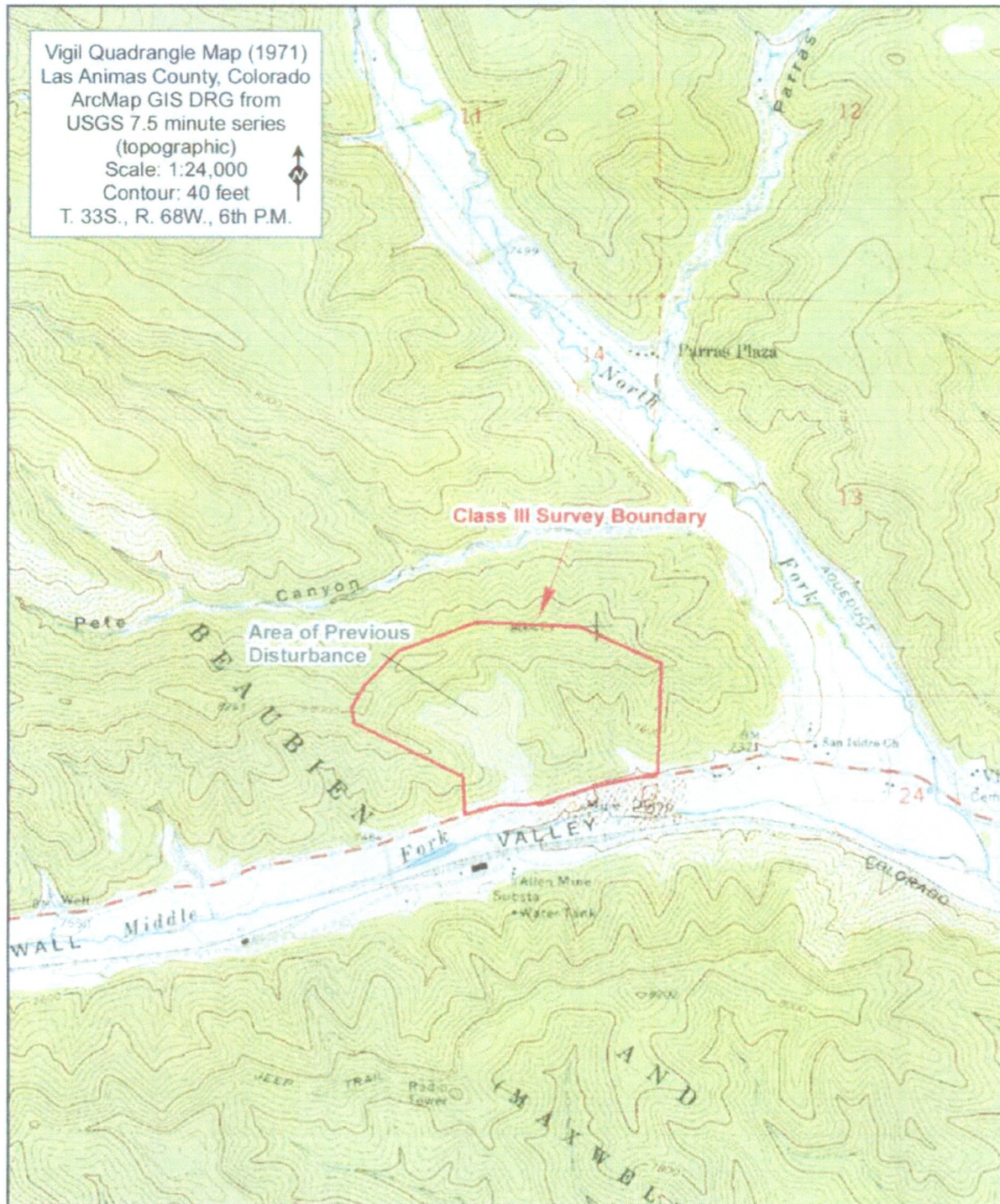


Figure 1. Project area location map for the Class III Cultural Resource Inventory for the RDA #1 Expansion in Las Animas County, Colorado for New Elk Coal Company LLC. Area surveyed is indicated. [GRI Project No. 2011-90, 10/7/2011].

Introduction

At the request of J. E. Stover & Associates, Inc. of Grand Junction, Colorado, Grand River Institute (GRI) was contracted by New Elk Coal Company, LLC (NECC) to complete a Class III cultural resources inventory of a block area of 180 acres for a proposed expansion of a Refuse Disposal Area (RDA) in Las Animas County, Colorado. The project area is situated within the Beaubien and Miranda (Maxwell) Land Grant. The Class III (pedestrian) field work was performed on the 5th and 6th of September 2011 by GRI archaeologist Lucas Piontkowski. Report preparation was conducted by Carl E. Conner (Principal Investigator), Curtis Martin, Hannah Mills, and Barbara Davenport of Grand River Institute under State of Colorado Archaeological Permit 2011-71 and BLM Antiquities Permit No. C-52775.

The inventory was conducted to meet requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321), the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701), and the Archaeological Resources Protection Act of 1979 (U.S.C. 470aa *et seq.*, as amended). These laws are concerned with the identification, evaluation, and protection of fragile, non-renewable evidences of human activity, occupation and endeavor reflected in districts, sites, structures, artifacts, objects, ruins, works of art, architecture, and natural features that were of importance in human events. Such resources tend to be localized and highly sensitive to disturbance.

Location of the Project Area

The project area is located within the steep slopes north of and adjacent to State Highway 12 which follows the Pugatoire River west of Trinidad, turns north outside of Stonewall and terminates just north of La Veta, Colorado at US Highway 160. The route was designated a Scenic Byway in 1989. Specifically, the study area lies approximately 2.7 miles east of Stonewall, Colorado, within T. 33 S., R. 68 W., unsectioned (within the Beaubien and Miranda (Maxwell) Land Grant); 6th P.M. (Figure 1).

Environment

The proposed project is within the Raton Basin, a structural basin that is an asymmetric synclinal basin containing sedimentary rocks ranging in age from Devonian to Holocene. The Basin forms the foothills of the Rocky Mountains, immediately east of the Sangre de Cristo Range. The sedimentary rocks are intruded by igneous plugs, dikes, and sills of Eocene and Oligocene age (Johnson 1969). East Spanish Peak and West Spanish Peak are formed from two large granitic intrusives. Dikes trend east-northeast to west-southwest. Basaltic sills tend to intrude along coal beds. The Raton Basin was a coastal plain at the end of the Cretaceous and beginning of Tertiary time, and has a well preserved sequence of rocks spanning the Cretaceous-Tertiary boundary (Pillmore 1991).

The Raton Formation underlies the study area. It consists of arkosic sandstone, siltstone, and shale and contains major coal deposits of the Raton Basin. It was formed during the Upper Cretaceous and Paleocene age. Pillmore (1969) measured the formation thickness as 2000 feet, and divided the Raton Formation into three divisions. The lowest division is a basal sandstone conglomerate of quartzite, chert and gneiss pebbles and cobbles in a coarse-grained quartzose to arkosi sandstone matrix. The middle division is fine to coarse grained sandstone, with some siltstone, mudstone, and coal. The upper division is coal-bearing and contains sandstone, siltstone, mudstone, shale, and mineable coal (ibid).

The project area occurs within the Stonewall Valley, on the north talus of the Middle Fork Purgatoire River. The topography includes foothills, ridge tops, prominences, and steep-walled valleys. Elevation ranges from 7400 to 8000 feet, and exhibits vegetation communities that include pinyon-juniper forest with open areas of mountain grassland and areas of mountain shrubs such as currant and mountain mahogany. These communities support a variety of wildlife species that include mule deer, black bear, mountain lion, coyote, badger, cottontail rabbit, and rock squirrel. The Trinchera elk herd roams the area and is believed to be one of the largest herds of elk in the world (Axelson 2008:344). The area also supports a small number of raptors that include red tailed hawk, kestrel, and golden eagle.

A range of seasonal temperatures is characteristic of the area. Average temperatures reach lows of 15 degrees F during the winter and summer temperatures are as high as 85 degrees F; there is a maximum of 132 frost-free days and the annual precipitation is about 36 inches (Zier and Kalasz 1999:9).

Present day land use within the project boundaries is primarily energy development. Ground visibility ranged from 30-70% due to vegetative cover.

Summary of Files Search and Literature Overview

A files search for this project was made through the Office of Archaeology and Historic Preservation at the Colorado Historical Society. The BLM General Land Office records and maps were also reviewed. Two inventory projects have occurred within a mile of the study area: 1) "Report on Archaeological Investigations in the Vicinities of the Allen and Maxwell Mines, CF & I Steel Corporation," in Las Animas County, Colorado by John Campbell with the University of New Mexico on January 1, 1980 (LA.OSM.R1) and 2) "A Class III Cultural Resources Survey Report for State Highway 12 Road Widening in Las Animas County, Colorado for New Elk Coal Company, LLC" by Conner and Darnell in May of 2011.

The review of files indicated that no cultural resources were previously recorded within the project area, nor were any historic manifestations (roads, structures, trails, ditches

etc.) evident on the historic survey plats. Five sites have been previously recorded within about one mile of the project area: 5LA1101 (Allen Mine), 5LA1105 (chapel), 5LA5930 (historic habitation and water control feature), 5LA10828.2 (a segment of State Highway 12), and 5LA12804 (a historic trash scatter).

Cultural resource investigations in the region have yielded surface diagnostic artifacts and excavated cultural materials consistent with the regional cultural history. Evidence provided by chronometric diagnostic artifacts and radiocarbon analyses indicate regional occupation during the Paleoindian, Archaic, and Late Prehistoric Eras. An overview of the prehistory of the region is provided in the Colorado Council of Professional Archaeologists' publication entitled "Colorado Prehistory: A Context for the Arkansas River Basin" (Zier and Kalasz 1999).

The project area is located within the Beaubien and Miranda Land Grant (also known as the Maxwell Land Grant). Its size of 1.7 million acres made it the largest land grant in U.S. history. It encompasses a large tract of land in New Mexico and the southern portion of Las Animas County, Colorado. The Grant was originally issued to Charles Beaubien and Guadeloupe Miranda in 1841. Prior to the issuance of the Grant, the land was the territory of Apache, Ute, and Comanche Indians. The Governor of New Mexico, Manuel Armijo approved the Grant in the hopes that new settlers would utilize the area's resources and drive out the Indians (Legends of America 2003).

Charles Lucien B. Maxwell, who was married to one of Beaubien's daughters, was a trapper and guide. He is known for leading Colonel John C. Fremont to California in 1846. Maxwell bought out Miranda and Beaubien's interest in the Grant by 1865 (Legends of America 2003). After this time, it came under English (1870) and Dutch control (1885) (Keleher 1942:168). Due to homesteaders, the Colorado portion of the Grant was especially fought over. On August 25, 1888, there was a violent incident at Stonewall, Colorado, in which several people were killed. The Maxwell Land Grant Company continued to sue homesteaders. In 1895, the US Supreme Court settled the Russell v. Maxwell Land Grant Company dispute, rejecting the homesteaders claims in favor of the company (Russell v. Maxwell Land Grant Co., 158 U. S. 253). John Rockefeller eventually bought out the Colorado portion of the Grant in 1901 through Colorado Fuel and Iron (Sangres.com 2009).

In 1862, 12 families moved north from New Mexico to settle the Purgatoire River Valley, west of Trinidad. Perhaps because of the troubles from the land grant, the area did not support much agriculture, even though it was believed to be well suited for cattle and sheep ranching and logging.

An overview of the history of the region can be found in "Colorado History: A Context for Historical Archaeology" (Church et al. 2007) as well as the "Colorado Southern Frontier Historic Context" (Carter and Mehls 1984).

Study Objectives

The purposes of the inventory were to conduct an intensive archaeological survey of areas subject to direct impact from road construction; to identify and accurately locate archaeological sites and/or districts and isolated finds; to evaluate these surface finds for inclusion on the National Register of Historic Places (NRHP); to determine the potential effect of the project on all NRHP-eligible resources; and to make recommendations for the mitigation of the adverse effects on those cultural resources. The presence of cultural resources was considered likely based on previously recorded sites and isolated finds in the vicinity.

Field Methods

A 100 percent, intensive (Class III) cultural resource survey of the 180 acre study area was carried out by a GRI archaeologist walking a series of transects spaced at 15m wide and working from USGS 7.5 minute series maps. Steep slopes were contoured. Approximately 30 acres within the project boundary has been previously disturbed.

Cultural resources were sought as surface exposures and were characterized as sites or isolated finds. A site is the locus of previous (50 year age minimum) human activity at which the preponderance of evidence suggests either one-time diagnostically interpretable use or repeated use over time, or multiple classes of activities. For example: a) isolated thermal features such as hearths, which due to the interpretable function of such utilization and the potential for chronometric and economic data recovery, are to be designated as sites, even though they may represent a single event; b) single element rock art panels, which are to be designated as sites due to the interpretable nature of such an event and the potential diagnostic value of the motif; c) isolated human burials; or d) loci exhibiting ground stone and flaked stone in association. An isolate refers to one or more culturally modified object(s) not found in the context of a site as defined above. Note that this definition makes no reference to an absolute quantitative standard for the site/isolate distinction. For example: a) a discrete concentration of flakes from the same material, regardless of the number of artifacts present, likely represents a single, random event and is properly designated as an isolate, or b) a ceramic pot bust, regardless of number of sherds that remain.

Environmental constraints which might be expected included previous ground disturbance that has modified the surface so extensively that the likelihood of finding cultural resources is negligible; human activity within the past 50 years that has created a new land surface such that all traces of cultural resources have been eradicated; natural environmental characteristics that are unfavorable to the presence of historic properties; slopes greater than 30% where no potential for rock shelter, rock art, or other cultural properties associated with rock faces or ledges exist; and areas with 100% vegetation coverage. All cultural resources that qualified as sites, such as prehistoric open camps, lithic scatters, occupied overhangs,

rockshelters, and evidence of historic occupation, were recorded as they were encountered according to standards set by the OAHP.

Sites were recorded using the following methods of mapping and note taking. The basic approach to the data collection was the continuous mapping of observed artifacts and features by recording UTM coordinates (NAD 83 Datum) using a Trimble Geo XT. Site maps were created using GPS data and ArcMap. Photographs were taken at each site and include general overviews and views of specific artifacts or features. Field notes for this project are on file at Grand River Institute, while the photographs are submitted to the OAHP. No artifacts were collected.

Results

A portion of the project area—approximately 30 acres—was disturbed by the previously existing RDA. Additionally, the survey was limited by steep slopes and heavy vegetation. Despite these limitations, a prehistoric camp (5LA12859) was newly recorded. This resource is described below and location data is provided in Appendix A on Figure A-1 and Table A-1. Figure A-1 is a 7.5' quadrangle map that shows the resource in relation to the proposed project and provides the UTM coordinates for the site. Additional detailed information is provided in the attached OAHP Resource Form, also in Appendix A (available at the OAHP).

Site Significance

The National Historic Preservation Act of 1966 (NHPA) directs federal agencies to ensure that federally-initiated or authorized actions do not inadvertently disturb or destroy significant cultural resource values. Significance is a quality of cultural resource properties that qualifies them for inclusion in the NRHP. The statements of significance included in this report are field assessments to support recommendations to the State Historic Preservation Officer (SHPO). The final determination of site significance is made by the controlling agencies in consultation with the SHPO and the Keeper of the Register.

The Code of Federal Regulations was used as a guide for the in-field site evaluations. Titles 36 CFR 60, 36 CFR 800, and 36 CFR 64 are concerned with the concepts of significance and (possible) historic value of cultural resources. Titles 36 CFR 65 and 36 CFR 66 provide standards for the conduct of scientific data recovery activities. Finally, Title 36 CFR 60.4 establishes the measure of significance that is critical to the determination of a site's NRHP eligibility, which is used to assess a site's research potential:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and a) that are associated with events that have made a

significant contribution to the broad patterns of history; or **b)** that are associated with the lives of persons significant in our past; or **c)** that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or **d)** that have yielded, or may be likely to yield, information important in prehistory or history.

Site Description

Site **5LA12859**, a prehistoric open camp, is located on a small bench situated on a talus slope overlooking Stonewall Valley (approximately 300 meters to the south) at an elevation of 7720 feet. On-site vegetation includes pinyon/juniper forest, Gamble oak, serviceberry, and sagebrush. Soils consist of shallow, rocky light brown loam.

The site, measuring approximately 30 x 15m, is characterized by a scatter of lithic debitage and flaked and ground stone tools. Chipped stone artifacts include a utilized flake, a chert scraper, a uniface and debitage. Sixteen flakes were noted on the site surface. All stages of cortical reduction were observed. Lithic materials consist predominately of locally available metaquartzite and siltstone (porcellanite), with some chert. The ground stone assemblage is comprised of one mano and an unidentifiable ground stone fragment. The mano is multi-faceted and has been ground and pecked. It measures approximately 11 x 8 x 4cm.

Some of the naturally occurring rock on the site surface has been reddened, apparently via thermal alteration or oxidation, however it is unclear as to whether this is due to past natural or cultural processes.

The site has been mildly affected by erosional processes, primarily sheet wash to the south and southeast, but not to a significant degree. Soils are of an unknown depth, but appear to be greater than 30cm. Overall, the site remains in good condition.

Evaluation and Management Recommendation

Although no thermal features were observed, the site may contain depth of cultural fill. Site testing is recommended before a final determination of eligibility can be made. Accordingly, the site is field evaluated as need data. With regard to the present project, the site is on the periphery of the project boundary and will be avoided by the proposed road and test pit construction, no further work is recommended.

Discussion

Although prehistoric culturally diagnostic materials were scant, this study has provided an opportunity to expand the present database concerning the prehistoric occupation

of the Purgatory drainage basin in particular, and the Raton Basin in general. Based on the recording of a prehistoric site, the study area was apparently used prehistorically for hunting and gathering, camping, and likely as a migration corridor. The ground stone artifacts, and possibly thermally-altered rock, suggest the likelihood of at least limited camping at the site.

Management Recommendations

The National Historic Preservation Act of 1966 (NHPA) directs the government agencies to ensure that initiated or authorized actions do not inadvertently disturb or destroy significant cultural resource values. The eligibility determination and consultation process is guided by Section 106 of the NHPA (36 CFR 60, 63, and 800). CDOT actions cannot be authorized until the Section 106 process is completed (36 CFR 800.1). An inventory such as this is the first step in the Section 106 process.

Literature reviews for known cultural resources in the project area were made through the Colorado Historical Society's Office of Archaeology and Historic Preservation. These indicated that no resources were previously recorded within the project's boundaries. As a result of the survey, one resource was identified and recorded: a prehistoric open camp (5LA12859). The site may contain depth of cultural fill and therefore is field evaluated as need data. Site testing is recommended before a final determination of eligibility can be made.

With regard to the presently proposed project, the cultural resource (5LA12859) is located on the ridge to the west of the RDA#1 expansion area and the construction, as proposed, will not affect the site. No further work is recommended

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FOR OFFICIAL USE ONLY: DISCLOSURE OF SITE LOCATIONS IS PROHIBITED (43 CFR 7.18)

Appendix A: Location Data and OAHP Site Form
(Available in SHPO copy only)

FOR OFFICIAL USE ONLY: DISCLOSURE OF SITE LOCATIONS PROHIBITED (43 CFR 7.18)

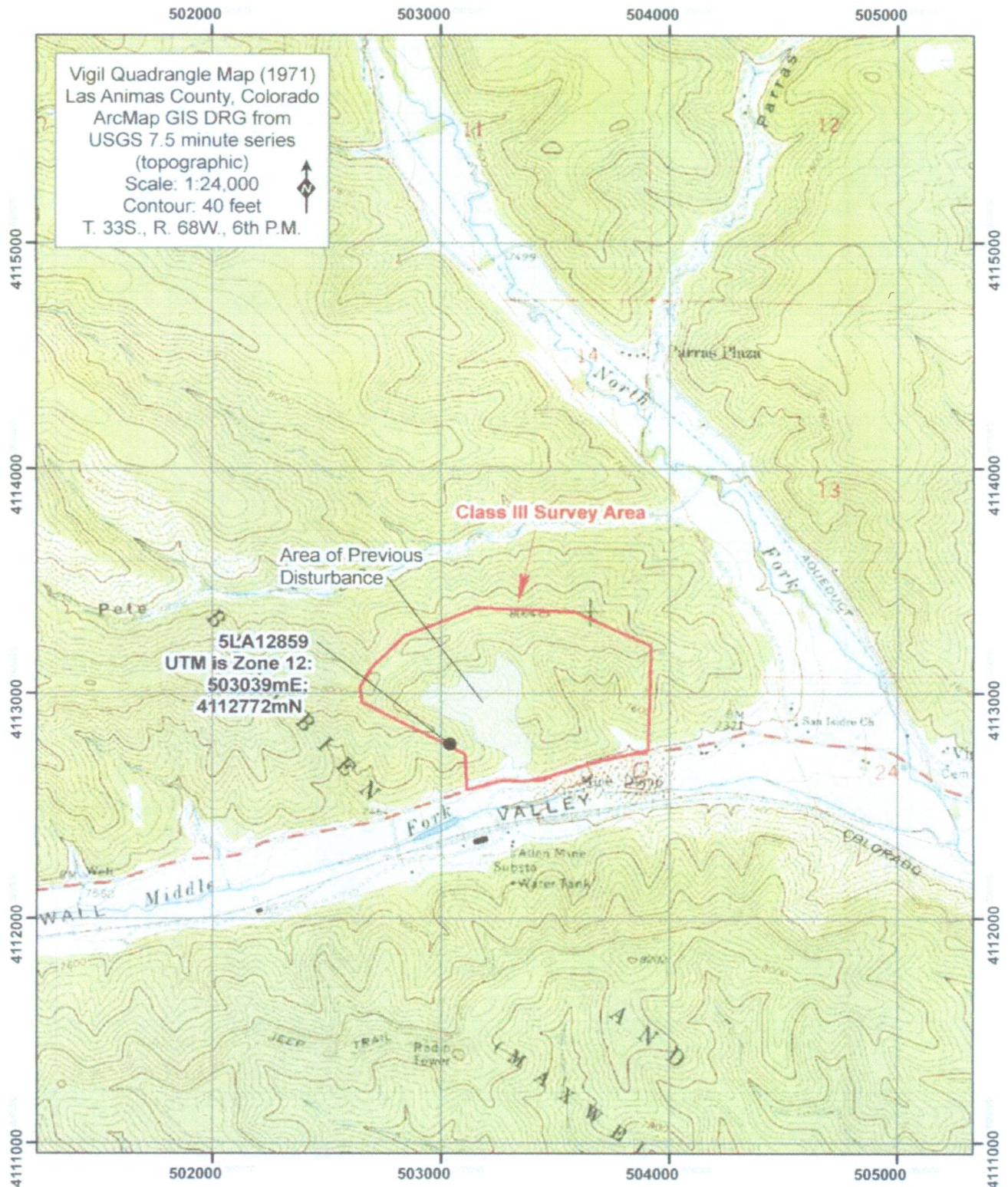


Figure A-1. Cultural resources location map for the Class III Cultural Resource Inventory for the RDA #1 Expansion in Las Animas County, Colorado for New Elk Coal Company LLC. The cultural resource is indicated. [GRI Project No. 2011-90, 11/29/2011].