

DRAFT

Report on the Historical Documentation of the Location and Extent of the

Sand Creek Massacre Site

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“The site of that historic [Sand Creek] affair has not been marked. If it were possible, we, as a nation, doubtless had rather the event could be forgotten.”

--Walter M. Camp, in *Proceedings of the Annual Meeting
and Dinner of the Order of Indian Wars of the United States
Held January Seventeenth Nineteen Hundred and Twenty*

I. Introduction

This report responds in part to P.L. 105-243, the Sand Creek Massacre Site Study Act of 1998, which requires the National Park Service, in consultation with the State of Colorado, the Cheyenne and Arapaho Tribes of Oklahoma, the Northern Cheyenne Tribe, and the Northern Arapaho Tribe, to undertake “to identify the location and extent of the massacre area” prior to initiating a special resource study to determine the suitability and feasibility of making the site a unit of the National Park system. The project encompasses an integrated, multi disciplinary approach, to include archival research conducted by historians, the collection of oral histories by ethnographers, traditional tribal investigations by Sand Creek Massacre survivor descendants and tribal leaders, and examination by geomorphologists and remote imagery specialists, followed by on-site archeological exploration by archeologists. This document presents the methodology, results, and conclusions of the archival component in determining the location and

extent of the massacre site.

Certain facts pertaining to the specific event of the Sand Creek Massacre are essential to this presentation. While the multiple forces bearing on its occurrence are beyond the immediate scope of this paper, suffice it to say that by the summer of 1864 a combination of issues and circumstances involving trespass by white intruders on Indian lands in Colorado and the Indians' retaliation, the attempts by Confederate agents to propagandize among the Cheyennes and Arapahos, coupled with the withdrawal east of federal troops for the Civil War, created conditions ripe for conflict. A treaty concluded at Fort Wise in 1861 between the United States and some, but not all, of the Cheyennes later fostered confusion and distrust among them, feelings that were further aggravated after Colorado volunteer troops attacked some of them in the spring of 1864. Infuriated by the enclosing conditions around them, Cheyenne, Arapaho, and Lakota warriors raided stage stations and ranches in the Platte River Valley, far beyond their prescribed reservations. Some even advanced within 20 miles of Denver to kill one white family in an incident that further inflamed passions and provoked calls for revenge. In response, the territorial governor raised troops to go after the tribesmen.¹

In early November, one village of Southern Cheyennes numbering at least 100 lodges,

¹For recitations of the events leading to the Sand Creek Massacre, see Donald J. Berthrong, *The Southern Cheyennes* (Norman: University of Oklahoma Press, 1963), pp. 152-215; George Bird Grinnell, *The Fighting Cheyennes* (Norman: University of Oklahoma Press, 1956), pp. 125-64; Stan Hoig, *The Sand Creek Massacre* (Norman: University of Oklahoma Press, 1961), pp. 18-128; Robert M. Utley, *Frontiersmen in Blue: The United States Army and the Indian, 1848-1865* (New York: The Macmillan Company, 1967), pp. 281-93; Alvin M. Josephy, Jr., *The Civil War in the American West* (New York: Random House, 1991), pp. 295-307; and Peter John Powell, *People of the Sacred Mountain: A History of the Northern Cheyenne Chiefs and Warrior Societies, 1830-1879, with an Epilogue, 1969-1974* (San Francisco: Harper and Row, Publishers, 1981), pp. 278-98.

including several of Arapahos, totaling as many as 500 people, professing peace and headed by Chief Black Kettle, came to Fort Lyon on the Arkansas River. On direction from the post commander, they located some 30 or 40 miles away on Sand Creek, northeast of the fort. There, at dawn on November 29, 1864, a large force of soldiers--some 725 men composed of the Third Regiment of Colorado Cavalry (100-day U.S. Volunteers) plus five companies of the First Regiment of Colorado Cavalry, accompanied by four 12-pounder mountain howitzer guns, all under the command of Colonel John M. Chivington of the First Colorado--struck Black Kettle's village on Sand Creek. The assault came essentially from the south and east, with soldiers and howitzer fire driving most of the occupants out of the lodges to scramble up the creek bottom away from the attackers, although many others fled west and northwest across the prairie in making their escape. The troops followed, units of the cavalry advancing along each side of Sand Creek firing their weapons indiscriminately at the fleeing people, many of whom were women and children. Other troops fanned out to chase after the people trying to get away over the undulating scape bordering the stream. Somewhere, perhaps at several places in the low-bluffed recesses of the creek bottom that stretched northwest of the village, the troops cornered and fired at pockets of the terrified people as they entrenched themselves for protection in hastily dug sand pits and attempted to fight back. Presently, the troops brought up at least two and perhaps more of the howitzers, directed them at the sand pits, and unleashed several rounds of spherical case ordnance that exploded among the Indians, bringing injury and death to scores of them, including largely noncombatant women, children, and the elderly. By all accounts, the slaughter that ensued from dawn until the afternoon caused the deaths of at least 125 (and likely many more) Indian people, while Chivington's casualties totaled but 9 men killed and 38

wounded. Following the massacre, many of the dead were mutilated by the soldiers. After the encounter, Chivington ordered his men to burn the village and destroy its property and two days later led his troops down Sand Creek to the Arkansas River to resume campaigning. Cheyenne and Arapaho survivors made their way northeast over ensuing days to camps of their kinsmen along the forks of the Smoky Hill River.²

Accounts of the massacre by participants are generally quite specific in describing various elements of the action; they are quite less specific in describing the precise location and extent along Sand Creek where the massacre took place. (Although the Colorado Historical Society placed a marker along Sand Creek in Kiowa County in 1950 (NW 1/4, Section 25, Township 17 South, Range 46 West, Sixth Principal Meridian, its designation of the massacre site seems to have been based largely upon the beliefs of then-local residents; the designation has since become clouded by time, disparate opinions by a variety of informed and uninformed people, and the lack of scientifically retrieved significant artifactual evidence to validate it. A State of Colorado-funded project administered by Fort Lewis State College to find the site in 1995-98 was inconclusive.³) Participant testimony seems most important for aiding the archival search regarding the potential extent of the massacre site, especially in the knowledge that the massacre included at least two major contributing sites that, although interrelated, occurred on

²This synopsis is based upon material presented in the aforementioned books, but see particularly, Hoig, *Sand Creek Massacre*, pp. 145-62; and Powell, *People of the Sacred Mountain*, pp. 299-310.

³See Douglas D. Scott, Anne Wainstein Bond, Richard Ellis, and William B. Lees, "Archeological Reconnaissance of Two Possible Sites of the Sand Creek Massacre of 1864." Unpublished report dated April, 1998, Department of Southwest Studies, Fort Lewis State College, Durango, Colorado.

separate and distinct ground areas composing the site. They are the village area, embracing a logically open, flat, or somewhat terraced tract on the north (east) side of Sand Creek sufficient to accommodate as many as 100 lodges, and an area to the west, where the stream bed of the creek turns northwest and becomes confined by slightly rising bluffs on either side, constituting the place or places where the fleeing tribesmen sought cover in sand pits or trenches and (along with the intervening length of stream bed running from the village to the pit area) where a major part of the massacre occurred. Because of the nature of their respective uses, the first as village and conflict site and the other as a principal conflict site or massacre site adjoining the stream bed, these separate yet interconnected focus areas when found might yield significant archeological data.

II. Methodology

Research into archival sources for information about the location and extent of the massacre site began during the summer of 1998 and continued into the spring of 1999. Three National Park Service historians and one contract historian conducted the research, aided, as necessary, by representatives of the Colorado Historical Society, the various Cheyenne and Arapaho tribes, the tribally recognized Sand Creek Descendants organizations, the Boulder History Museum, and appropriate landowners. Methodology consisted of an initial review of the published literature about Sand Creek, including primary material published in assorted government documents. This was followed by extensive research into archival resources existing within and outside of the State of Colorado, notably historical maps, manuscript and published diaries, soldier testimonies, contemporary and later newspaper accounts, General Land

Office surveys, homesteading records, U.S. Geological Survey maps, army officers' scouting reports, post records, and veterans' tabloids. Every attempt was made to locate and consider Cheyenne and Arapaho participant accounts of the Sand Creek massacre. In all instances, the inquiry focused on references to the location and extent of the Sand Creek massacre site or upon data from which some aspect of the desired information might be interpreted. Pertinent data that were considered to be of use in locating the site and its extent were then extracted from the source material for evaluation for accuracy and comparison with other data, such as aerial photographs and U.S. Geological Survey (USGS) maps of the Sand Creek area. Three interim reports on the status of the archival research, incorporating discussions and compilations of data bearing on the objective, were produced in September, 1998, and in January and April, 1999. It is important to note that the following presentation is based upon those materials deemed to bear most significantly on the subject of the location and extent of the massacre site and selected from among the many archival sources assembled since the project began.

Colorado repositories that contributed to the effort consisted of the Denver Public Library (Western History Department); Colorado Historical Society, Denver; University of Colorado Library, Boulder; National Park Service Library, Lakewood; University of Denver Library; Colorado College Library, Colorado Springs; Pioneer Museum, Colorado Springs; Kiowa County Museum, Eads; Big Timbers Museum, Lamar; Kit Carson Museum, Kit Carson; and the Denver Branch, National Archives, Denver Federal Center. Other repositories visited or otherwise consulted during the course of the research were the National Archives, Washington, D.C.; Library of Congress, Washington, D.C.; U.S. Army Military History Institute, Carlisle, Pennsylvania; Little Bighorn Battlefield National Monument, Crow Agency, Montana;

Oklahoma Historical Society, Oklahoma City, Oklahoma; Brigham Young University, Provo, Utah; Newberry Library, Chicago, Illinois; National Anthropological Archives, Smithsonian Institution, Washington, D.C.; Southwest Museum, Los Angeles, California; Huntington Library, San Marino, California; Beineke Library, Yale University, Hartford, Connecticut; Dr. John Woodenlegs Memorial Library, Dull Knife College, Lambe Deer, Montana; Missouri Historical Society, St. Louis; New York Public Library, New York, New York; Washita Battlefield National Historic Site, Cheyenne, Oklahoma; Great Lakes Branch, National Archives, Chicago, Illinois; and National Museum of Medicine and Health, Bethesda, Maryland. In addition, a number of individuals with knowledge bearing upon the location of the site were interviewed by the historians. All sources consulted, manuscript and published, along with identification of the conducted interviews, are included in the bibliography.

III. Findings Regarding the Location of the Site of the Sand Creek Massacre

The archival search for information to identify the site of the Sand Creek Massacre resulted in an accumulation and examination of written reports, diaries, and reminiscences of individuals who were present at the event; historical maps, particularly those contemporary with the period of the massacre as well as those based upon reminiscence; historical aerial photographic documentation; and the compilation and examination of various land records relating to the course of Sand Creek and possible changes in its configuration through the years. Employing these assorted documents, the search for the massacre site concentrated on the evaluation of evidence relating directly to (A) the location and configuration of Sand Creek proper, together with certain of its affluents; (B) the distance traveled by Chivington's troops in

advancing for their attack; (C) the trail, or route of approach of the troops from Fort Lyon; (D) the post-massacre bivouac site of Chivington's command; and (E) historical maps bearing directly on the place and event.

A. Sand Creek

Sand Creek, also known as the Big Sandy, takes its head in east central Colorado, near the community of Peyton, and runs northeast approximately 50 miles to near the town of Limon, where it abruptly turns southeast and continues southeast and south for approximately 125 miles until it joins the Arkansas River a few miles east of present Lamar. In the course of its southeastwardly progression, Sand Creek makes a number of notable bends, two of which, because of their relative distance from Fort Lyon, were considered important geographic indicators as to the possible location of the massacre site. The bends lie approximately 8 miles apart and for purposes of this report are designated the North Bend and the South Bend. The South Bend corresponds to the location of the Colorado Historical Society marker placed in 1950. A major tributary that factors significantly in the determination of the location of the site is Rush Creek, which enters Sand Creek from the northwest approximately 20 miles above the latter stream's confluence with the Arkansas and about 5 miles south of the present community of Chivington. (Research into General Land Office records of the Sand Creek area and comparisons to modern USGS maps led to concerns that the course of the stream had possibly changed during the years since 1864, particularly in the area of the South Bend. Results of geomorphological testing conducted in December, 1998, however, suggest that there is little

evidence to indicate past major channel shifting on this part of Sand Creek.⁴ Moreover, computerized comparisons of 1890-91 USGS maps with modern USGS maps indicate numerous and gross errors in topography and stream alignment as registered on the early maps, doubtless caused by faulty surveying practices.)

B. Distance from Fort Lyon

Contemporary accounts of the massacre generally describe the site as being between 25 and 45 miles north or northeast of Fort Lyon on the Arkansas River, the departure point of Chivington's force on the night of November 28, 1864, and situated about 38 miles west of the mouth of Sand Creek.⁵ The preponderance of the accounts states that the site where Chivington attacked the Indians was 40 miles from Fort Lyon. Several specify the site as being on or near the "South Bend Big Sandy," the "Big Bend of Sandy Creek," and the "South Bend of Big Sandy," an area consistent with one or another of the aforementioned bends.⁶ Straight line

⁴Lysa Wegman-French and Christine Whitacre, "Historical Research on the Location of the Sand Creek Massacre Site (Interim Report No. 1)," September 11, 1998. National Park Service Intermountain Support Office-Denver, pp. 3-4; E-mail, Douglas D. Scott, December 21, 1998, subject, "Sand Creek geomorp."

⁵This was "Old Fort Lyon," originally named Fort Wise, established in 1860 and abandoned by the army in 1867 because of flooding of the Arkansas. A "New Fort Lyon" was raised that year 20 miles to the west, not far from the modern community of Las Animas. A brief overview of the early post is in LeRoy Boyd, *Fort Lyon, Colorado: One Hundred Years of Service* (Fort Lyon, Colo.: VA Medical Center, 1967), pp. 3-6. See also, Robert W. Frazer, *Forts of the West* (Norman: University of Oklahoma Press, 1965), pp. 41-42.

⁶The first two locational references were given by Chivington in correspondence following the massacre. See Chivington to Major General Samuel R. Curtis, November 29, 1864, in *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies* (73 vols., 128 parts; Washington: Government Printing Office, 1880-1901), Series I, vol. 41, part I, p. 948; and Chivington to Charles Wheeler, November 29, 1864, in U.S.

distance from Fort Lyon to the North Bend is 37.7 miles, while that to the South Bend is 34.7 miles,⁷ both short of the preponderant 40-mile distance given in the historical records; the course over the military trail from the post to the Indian village would likely have been several miles longer considering normal meanderings of the route over the existing landscape.⁸

C. Trail from Fort Lyon to the Village

George Bent (1843-1918), a mixed-blood Cheyenne who was in the village at the time of Chivington's attack and who survived it, indicated that the village stood on the north bank of Sand Creek at the point where an "Indian trail made by lodge poles" crossed the stream. Bent

Senate. 39 Cong., 2 sess. *Report of the Secretary of War, Communicating . . . a Copy of the Evidence Taken at Denver and Fort Lyon, Colorado Territory by a Military Commission Ordered to Inquire into the Sand Creek Massacre, November 29, 1864*. Executive Document No. 26 (Washington: Government Printing Office, 1867), p. 48 (hereafter referred to as *Sand Creek Massacre*). The last appears in First Lieutenant Clark Dunn, Company E, First Colorado Cavalry, to Chivington, November 30, 1864, in *War of the Rebellion*, Series I, vol. 41, part I, p. 955, and in Second Lieutenant J.J. Kennedy, Company C, First Colorado Cavalry, to Chivington, November 30, 1864, in *ibid.*, pp. 954-55. See also the "Record of Events" section, Muster Rolls for Company C and E, First Colorado Cavalry for November-December, 1864. National (NA) Archives and Record Center, Denver. Record Group (RG) 94, "Compiled Records Showing Service of Military Units in Volunteer Union Organizations." Microfilm Publication M594, Roll 4.

⁷These figures are from Thomas Baker, *Aerial Archaeology at Sand Creek: An Attempt to Locate the Site of the Sand Creek Massacre of 1864 in Southeastern Colorado from the Air* (Tijeras, New Mexico: Aerial Archaeology Press, 1998), p. 32.

⁸The distance figures of between 30 and 45 miles from Fort Lyon to the village have been excerpted from a variety of original sources and are presented in Lysa Wegman-French and Christine Whitacre, "Historical Research on the Location of the Sand Creek Massacre Site (Interim Report No. 2)," January 29, 1999. National Park Service Intermountain Support Office-Denver, pp. 3-6; and Lysa Wegman-French and Christine Whitacre, "Historical Research on the Location of the Sand Creek Massacre Site (Interim Report No. 3)," April 27, 1999. National Park Service Intermountain Support Office-Denver, pp. 2-3.

later recalled that “a lodge trail ran from near Fort Lyon in a northeasterly direction to the head of the Smoky Hill [River], and we were encamped where this trail crossed Sand Creek.”⁹ Bent made two maps of the village area, both of which clearly show lines indicating Chivington’s approach, possibly along or near the Indian trail, which is not otherwise indicated on either map (see Accompanying Illustrations 1 and 2). Despite the fact that Bent, aided by other Cheyenne participants, sketched his schematic maps of the village layout more than forty years later, they contain a remarkably high level of detail, doubtless because of his and his assistants’ direct knowledge.¹⁰ However, Bent’s maps show “Chivingtons [sic] Trail” proceeding from the south, intersecting the stream bed at a right angle, and entering the village, a configuration at variance with the immediate and reminiscent accounts of soldier participants who maintained that they entered the dry Sand Creek bottom and marched along it for a considerable distance before opening their attack from the northeast and southeast.

The lodge pole trail running from near Fort Lyon was probably the same route passed over by Black Kettle and his delegation when they moved back to Sand Creek following their visit with Major Scott Anthony just days before the massacre, reportedly crossed that stream, possibly bisecting the village area, and continued northeast to the Smoky Hill River.

Examination of 1930s Soil Conservation Service photographs of the area composing Sections 24

⁹George E. Hyde, *A Life of George Bent Written from His Letters*. Ed. By Savoie Lottinville (Norman: University of Oklahoma Press, 1968), p. 151.

¹⁰One of Bent’s two maps of the village site, both prepared in ca. 1905-14, is in the George Bent-George E. Hyde Collection, Folder 1, Western History Collections, University of Colorado Library, Boulder. The other is in the Indian Archives Division, Cheyenne/Arapaho Agency File, “Warfare,” 1864-1885, Microfilm Roll 24. Oklahoma Historical Society, Oklahoma City.

and 25, Township 17 South, Range 46 West indicates the presence of several trail remnants crossing Sand Creek both east and west of the present Colorado Historical Society site marker that might indicate the location of the lodge pole trail.¹¹ (See Accompanying Illustration 4.)

At least two soldiers reported that they followed along an Indian trail during the advance to the village site.¹² One man recalled that on leaving the post on the evening of November 28, Chivington's column followed "well worn trails that marked the line of Indian travel."¹³ The military trail from Fort Lyon seems thus to have paralleled, and perhaps at times overlaid, the lodge pole trail for most of its distance to the village and then might have guided Chivington's direct approach to the camp. A few veteran soldier accounts mention that the troops rode through a pond of water en route north on the trail.¹⁴ Several shallow rain basins or ponds are present today at a distance of approximately 11 miles north of the site of Fort Lyon. Aerial photographs taken in 1997 confirm the presence of these ponds, as well as of a remnant trail consistent with the military route leading north from the area of Bent's New Fort, which

¹¹National Archives. Record Group 114, Records of the Soil Conservation Service. Aerial photos AC298-31, 32, 48, 49.

¹²John Lewis Daily, Diary. Denver Public Library, Western History Department, Microfilm; Letter from George Wells in *The Miner's Register*, Central City, Colorado, December 27, 1864.

¹³Unidentified correspondent's (George A. Wells?) letter, *The Miner's Register*, January 4, 1865.

¹⁴Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879. Typed copies in the Cary Collection, University of Denver, Box 4; C.B. Horton, "Survivor Tells of the 'Chivington Massacre.'" *The Denver [?] Times*, July 24, 1903, p. 8 (reprinted from the *Chicago-Herald Record*, unknown date); Interview with Eugene Weston, November 14, 1907. Cragin Notebook X, 11. Starsmore Research Center, Pioneer Museum of Colorado Springs, Colorado; Irving Howbert, *Memories of a Lifetime in the Pikes Peak Region* (New York: G.P. Putnam's Sons, 1925), p. 122.

adjoined Fort Lyon on the east, and which passed directly through a natural water-filled basin.¹⁵

D. Post-Massacre Camp of Chivington's Command on December 1, 1864

Several participant accounts indicate that after spending two days and two nights at the scene of the massacre Chivington moved his command south and bivouacked along Sand Creek. Sergeant Lucian Palmer of Company C, First Colorado, testified specifically that "we camped in Sand Creek, 12 miles from the battle-ground, the night of the 1st of December." Diarist Henry Blake, of Company D, Third Colorado Cavalry, reported that on December 1 the command "camped 13 miles below on Sand Creek." And Private Hal Sayre noted in his diary that the troops "took the back track and camped tonight [December 1] on dry creek [Sand Creek] 15 miles south of battle field." Yet another diarist, John Lewis Dailey, reported camping that night 15 miles from the massacre site "on a watery tributary," while Morse Coffin, of Company D, Third Colorado, stated that the command moved "about fifteen miles toward Fort Lyon, where we camped for the night."¹⁶ These figures align well with the approximate distance north from

¹⁵Baker, *Aerial Archaeology at Sand Creek*, pp. 30-31.

¹⁶Palmer's testimony is in *Sand Creek Massacre*, p. 144; Henry Blake Diary. Boulder Historical Society Collections, Carnegie Branch Library for Local History (published in the *Boulder Daily Camera*, August 2, 1941); Hal Sayre Diary, entry for December 1, 1864. Sayre Papers, Western History Collections, University of Colorado Library, Boulder; John Lewis Daily, Diary, entry for December 1, 1864. Western History Department, Denver Public Library; Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879. Typed copies in the Cary Collection, University of Denver, Box 4. Interpreter John Smith stated that he returned with Chivington "on his trail towards Fort Lyon from the camp where he made this raid. I went down with him to what is called the forks of the Sandy." Testimony of John S. Smith, March 14, 1865, in U.S. Senate. 38 Cong., 2nd Sess. *Report of the Joint Committee on the Conduct of the War, Massacre of the Cheyenne Indians*. Report No. 142 (Washington:

the confluence of Rush and Sand creeks, and would place the massacre site in the area of the south bend of Sand Creek. On December 2, Chivington sent his dead and wounded back to Fort Lyon, undoubtedly over the trail his troops had used during their march out the night of November 28-29. The colonel accompanied the remainder of his men down Sand Creek in a southeasterly direction to the Arkansas River as they resumed campaigning.

E. Maps

A large number of published and manuscript historical maps were consulted for geographical information about streams, trails, roads, land use, ownership, and other data that might help locate the massacre site. While most of these contained limited useful information for the specific purposes of this project, they were cumulatively valuable for the regional knowledge that they imparted. However, only one manuscript map contained significant information that pertained directly to the location of the Sand Creek Massacre site, as discussed below.

1. The George Bent-George Hyde Maps

Besides the two valuable maps he provided in circa 1905-14 representing the configuration of the Cheyenne-Arapaho village along Sand Creek at the time of the massacre (Accompanying Illustrations 1 and 2), George Bent helped render two others showing the broader region of eastern Colorado Territory on which he designated the location of Black

Government Printing Office, 1865), pp. 5-6 (hereafter cited as *Massacre of the Cheyenne Indians*)

Kettle's village. The maps were initially prepared by Historian George E. Hyde, who was gathering narrative material for a biography of Bent. Hyde evidently traced the maps from existing 1890-91 USGS topographical maps and then mailed them to Bent with instructions to mark place names on them. Although his grasp of the geography and topography of the land traversed by the Cheyennes and Arapahos in their peregrinations was generally superb, Bent, possibly because of gross inaccuracies in the available topographic map that Hyde sent him, was apparently unsure of the precise location of the Sand Creek massacre site. On one map, he indicated that Black Kettle's camp stood along the stream at its big north bend, some 8 or 9 miles above the present historical marker; on the other he placed the scene of the massacre well below the confluence of Rush Creek with Sand Creek, at least 30 miles from his other projection and some 25 miles below the present marker. The lack of certainty evident in Bent's two regional maps thus discounted their value in discerning the exact location of the massacre.¹⁷

2. The Bonsall Map and Aerial Confirmation

The signal manuscript map found to date that definitively establishes a site for the Sand Creek Massacre is that drawn by Second Lieutenant Samuel W. Bonsall, Third Infantry, stationed at Fort Lyon (see Accompanying Illustration 3). The map, discovered in 1996 in the Chicago branch center of the National Archives, is closely contemporary with the action, in that Bonsall prepared it in June, 1868, at or near the time of his march and within four years of the massacre. Prepared in accordance with *United States Army Regulations* in the form of a strip

¹⁷Bent maps in the Bent-Hyde Collection, Western History Collection, University of Colorado Library, Boulder (see "Interim Report No. 2," Maps B and C).

map and journal¹⁸ documenting the route of his detachment of eleven infantry soldiers from Fort Lyon to Cheyenne Wells as they escorted Lieutenant General William T. Sherman east following a tour of frontier sites, Bonsall's map is graphically detailed with regard to landmarks and place names, and includes time and mileage readings between marches. Without question, it is the most important document yet located to convincingly posit the site, which is designated thereon as "Chivingtons [sic] Massacre."¹⁹

¹⁸Army regulations directed that "commanding officers of troops marching through a country little known, will keep journals of their marches according to the form and directions hereto annexed. At the end of the march a copy of the journal will be retained at the station where the troops arrive, and the original will be forwarded to the head-quarters of the Department, or *corps d'armee*. Thence, after a copy has been taken, it will be transmitted, through the head-quarters of the army, to the Adjutant-General, for the information of the War Department. . . . The object of the journal is to furnish data for maps, and information which may serve for future operations. Every point of practical importance should therefore be noted. . . ." The journal was to be kept in a pocket notebook. "The horizontal divisions in the column headed '*Route*' represent portions of a day's march. The distance, in miles, between each of the horizontal divisions, will be noted in the column headed '*Distance*,'" "The notes within each horizontal division are to show the general direction of the march, and every object of interest observed in its course. All remarkable features of the country, therefore, such as hills, streams, fords, springs, houses, villages, forests, marshes, &c., and the places of encampment, will be sketched in their relative positions, as well as noted by name. . . ." "The '*Remarks*' corresponding to each division will be upon the soil, productions, quantity and quality of timber, grass, water, fords, nature of the roads, &c., and important incidents. They should show where provisions, forage, fuel, and water can be obtained; whether the streams to be crossed are fordable, miry, have quicksands or steep banks, and whether they overflow their banks in wet seasons; also the quality of the water; and, in brief, every thing of practical importance." *Revised United States Army Regulations, of 1861. With an Appendix containing the Changes and Laws Affecting Army Regulations and Articles of War to June 25, 1863* (Philadelphia: George W. Childs, 1864), pp. 99-104. Pages 100-103 contain the precise format of the journal exactly as followed by Lieutenant Bonsall. (Although his product strictly complied with army regulations, its large format suggests that it might have been prepared from notes after completion of his march.)

¹⁹"Journal of the march of the men belonging to the Garrison of Fort Lyon, C.T., under the command of Lieut. S.W. Bonsall 3rd Infantry, from Old Fort Lyon C.T., to Cheyenne Wells, pursuant to S.O. No 66 Hdqrs Fort Lyon C.T. June 12, 1868." NA, RG 77. Records of the Office of the Chief of Engineers.

Discovery of the Bonsall map has led to a corresponding pursuit of information about Bonsall himself as well as that of some circumstances of the purpose and activities of his detachment's trek between Fort Lyon and Cheyenne Wells. Bonsall was from Bloomington, Indiana, and four months after the outbreak of the Civil War, at age twenty-two, he enlisted in the Eighteenth Indiana Volunteer Infantry Regiment. Commissioned a second lieutenant within five months, Bonsall won promotion to first lieutenant in July, 1863. Bonsall resigned from his regiment in September, 1864, but within three months joined the Sixth U.S. Veteran Volunteers as a captain. He was known during the war as "a brave and competent officer and gentleman" and a veteran of "a half dozen pitched battles." Mustered out in April, 1866, in May he joined the Third Infantry regulars as a second lieutenant. He served as regimental adjutant from February to October, 1867, and advanced to first lieutenant in July, 1868. Like many officers on frontier duty, Bonsall fought a drinking problem. In August, 1872, on the advice of his commanding officer, he resigned from the army and returned to Indiana. Efforts to regain his commission, which included direct appeals to General Sherman and President Ulysses S. Grant, proved unsuccessful and Bonsall never returned to the army.²⁰

Direct evidence of the purpose of Bonsall's movement appears in Fort Lyon Special Order No. 66, which directed that

1st Lieut. S. W. Bonsall 3' U.S. Infantry will take one Non commissioned Officer and ten (10) men . . . and report to Lieut Genl W. T. Sherman, Commanding

²⁰Francis B. Heitman (comp.), *Historical Register and Dictionary of the United States Army, from Its Organization, September 29, 1789, to March 2, 1903* (2 vols.; Washington: Government Printing Office, 1903), I, 230; Appointment, Commission, and Personal File of Samuel W. Bonsall (B530 CB 1865, Microfilm Publication M1064, Roll 144). NA, RG 94, Records of the Adjutant General's Office.

Military Division of the Missouri, as escort to Fort Wallace, Kas. After performing this duty he will return to this Post without delay. The detachment will take eight (8) days rations. The Quartermasters Department will furnish the necessary transportation, two (2) wagons and four extra mules.²¹

Sherman had been at Fort Union, New Mexico Territory, on June 11 and had proceeded from there to Trinidad, Colorado, and Fort Lyon. Although Bonsall was authorized to accompany the general to Fort Wallace, in fact the escort lasted only until they reached the stage line at Cheyenne Wells. Sherman described his journey thus: "At Fort Lyon, I crossed over to the Smoky Hill Line reaching it at Cheyenne Wells, whence I came by stage to Fort Wallace, and the end of the Kansas Branch of the Pacific Railroad."²² From there Sherman entrained east to Fort Leavenworth to meet Major General Philip H. Sheridan, commander of the Military Department of the Missouri at Fort Leavenworth, and in whose department Sherman's tour took place, then proceeded to his own headquarters in St. Louis.²³

A reminiscent account by Luke Cahill, a noncommissioned officer who served in the Third Infantry between 1866 and 1869 and was posted at Fort Lyon in 1868, discussed the mission, which included a tour by Sherman of the scene of the Sand Creek carnage. According to Cahill, Bonsall commanded the detachment, which reached the battleground "about two p.m."

²¹Special Order No. 66, Headquarters, Fort Lyon, C.T., June 15, 1868. NA, RG 393, Pt. I. Entry 2634. Post Orders, 1868-1908.

²²Sherman to the Adjutant General, Edward D. Townsend, June 24, 1868. NA, RG 94. 793M1868, Letters Received. NA Microfilm Publication M619, Roll 639.

²³Sheridan to Lieutenant Colonel Alfred Sully, Third Infantry, June 16, 1868. NA, RG 393. Records of United States Army Commands. Letters Received, District of the Upper Arkansas, May, 1867-1869, Part 3, 799, Box 2.

Furthermore, wrote Cahill:

After dinner, General Sherman requested that all the escort hunt all over the battleground and pick up everything of value. He wanted to take the relics back to Washington. We found many things, such as Indian baby skulls; many skulls of men and women; arrows, some perfect, many broken; spears, scalps, knives, cooking utensils and many other things too numerous to mention. We laid over one day and collected nearly a wagon load.²⁴

Further information indicates that Bonsall developed a continuing knowledge of the massacre site and that his visit there with Sherman was not but a fleeting occurrence. In 1866, an officer of the Army Medical Museum asked that skeletal specimens of tribesmen killed in the course of army-Indian encounters in the West be shipped to the museum for examination and use in ballistics studies. The request resulted in the collection and forwarding of numerous remains, including some from Sand Creek that were picked up at the site between 1867 and 1870. According to records in the National Anthropological Archives of the Smithsonian Institution, at least two skulls (one identified for unknown reasons as that of a Kiowa Indian) were collected by Lieutenant Bonsall at the massacre site, probably in 1870.²⁵ Together with the Cahill

²⁴Luke Cahill, "Recollections of a Plainsman." Unpublished manuscript ca. 1915. MSS 99 in the Manuscripts Division, Colorado Historical Society, Denver. Cahill's service is referenced in Virgil D. White (comp., ed.), *Index to Indian Wars Pension Files, 1892-1926* (2 vols.; Waynesboro, Tenn.: National Historical Publishing Company, 1987), I, 224.

²⁵*United States Army Medical Museum Anatomical Section: Records Relating to Specimens Transferred to the Smithsonian Institution* (Washington: National Anthropological Archives, Smithsonian Institution, 1990), p. 28 and appended documentation; Lenore Barbian, Anatomical Collections Manager to Gary L. Roberts, November 20, 1998, forwarding copies of accession files in the National Museum of Health and Medicine, Armed Forces Institute of Pathology, Washington, D.C.; and Memorandum, Museum Technician Scott Brown to Tom

manuscript, these references are important benchmarks for placing Bonsall at the massacre site on at least two known occasions, thus establishing for him credibility for his presumed knowledge of the location of “Chivingtons Massacre” as reflected on his map of June, 1868.

In the discussion about the map that follows, distances in parentheses reflect modern straight-line measurements²⁶ and are provided as comparisons for Bonsall’s own mileage figures, which were derived either from army odometer readings or reasoned estimates of distance traversed. Because Bonsall’s figures are rounded off, it is assumed that the distances reflected on his map represent the latter, i.e., judgments of the approximate distance marked than of precise odometer-registered figures. Internal evidence indicates that although this route to Cheyennes Wells had not been extensively used before, by June, 1868, it was becoming increasingly used as a military road. Bonsall’s map shows that his detachment left Fort Lyon at 5:30 a.m. on June 16, and moved generally northeast and north from Fort Lyon probably along the same route used by Colonel Chivington less than three and one-half years earlier. About two hours later, at a point 11 miles out, Bonsall’s detachment encountered a “Large basin [with] no outlet,” shortly followed by another of identical description. In his accompanying journal, the lieutenant noted that the “basins would hold water in wet weather, and in very rainy weather

Killiam, Case Officer, Repatriation Office, October 21, 1991, re: Sand Creek Skeletal Remains. All of the above is presented in Gary L. Roberts, “The Sand Creek Massacre Site: A Report on Washington Sources,” prepared for the National Park Service in January, 1998. An engraving of one of the Sand Creek skulls collected by Bonsall appears in *Circular No. 3*. War Department, Surgeon-General’s Office, August 17, 1871. *A Report of Surgical Cases Treated in the Army of the United States from 1865 to 1871*. By George A. Otis, Assistant Surgeon (Washington: Government Printing Office, 1871), pp. 15-16.

²⁶Based on LORAN (Long Range Aid to Navigation) used in aerial readings that compute distance from latitude/longitude fixes on landmarks. Baker, *Aerial Archaeology at Sand Creek*, p. 6.

would be impassible.” Bonsall’s party continued on the trail through both basins (one of which was possibly the lake, or pond, encountered by Chivington’s men on the night of November 28-29, 1864) for another 8 miles before making a temporary camp just above the junction of Rush Creek with Sand Creek, and called “Greenwoods Camp” on the map but referenced in the journal as “Camp No. 1.” Here, at 11 a.m., they halted for “five hours to graze the animals.”²⁷ Apparently at around 4 p.m., the detachment proceeded north for another two hours, covering a distance of 11 miles, but perhaps more like 12 miles (13.1 miles), from the Rush Creek confluence to the point where the trail crossed Sand Creek.²⁸ Bonsall related that en route his men “found plenty of good water by sinking a box in the sand in the bed of the creek.” Bonsall made his bivouac, designated “Camp No. 2” on his map, on the east side of the road and on the

²⁷It is not clear from the documents whether Bonsall’s party was mounted or traveled riding in the wagons. The rate of march appears to have been more or less consistent with period regulations governing the use of infantry, i.e, roughly 3.3 miles per hour. See Edward S. Farrow (comp.), *Farrow’s Military Encyclopedia* (3 vols.; New York: Military-Naval Publishing Company, 1895), II, 270; and *Field Service Regulations, United States Army* (Washington: Government Printing Office, 1905), p. 86. “Greenwood’s Camp” was likely named for either Commissioner of Indian Affairs Alfred B. Greenwood, who negotiated the Treaty of Fort Wise with the Cheyennes and Arapahos in 1860, or Colonel William H. Greenwood, chief engineer of the Kansas Pacific Railroad, who supervised the line’s surveys (which included a prospective route through the area north and east of Sand Creek), maintained headquarters at Sheridan, Kansas, and laid out the town of Kit Carson in November, 1869. Colonel Greenwood later became chief engineer of the narrow gauge Denver and Rio Grande Railway. For Alfred B. Greenwood, see *Biographical Directory of the American Congress, 1774-1961* (Washington: Government Printing Office, 1961), p. 973; and Berthrong, *The Southern Cheyennes*, pp. 148-49. For William H. Greenwood, see George L. Anderson, *Kansas West* (San Marino, Calif.: Golden West Books, 1963), pp. 32-33, 37, 47, 51, 64, 69-70, 76, 93, 99, 104, 109, 111, 116, 137; and *Poor’s Manual of Railroads*, annual issues 1868-75.

²⁸There might be a slight discrepancy in Bonsall’s distance-traveled column, in that although the two areas representing the 11-mile segments of the march are identical in measurement, that addressing the 11 a.m.-to 6 p.m. portion ends perhaps a mile below the crossing of Sand Creek, making the actual estimated distance from “Greenwood’s Camp” to “Camp No. 2” more like 12 miles.

west (south) side of Sand Creek. By his estimate, he had traveled about 30 or 31 miles (34.7 miles) from Fort Lyon.

At a point on his map just beyond the ford of Sand Creek the lieutenant drew a bold line representing a distance of about 2 miles in length along the north (east) side of the stream and denoted it as the site of "Chivingtons Massacre." It is obvious from the site's delineation that it was already a well-known landscape feature. Furthermore, its pronounced representation on Bonsall's map without doubt signifies its importance along the route because of General Sherman's presence and indicated interest in it, resulting in the collection there of human remains and artifactual specimens. The detachment camped at the ford from 6 p.m. of June 16 until 5:30 a.m. of June 17, when it moved on. Importantly, the Bonsall map indicates the location of the Sand Creek Massacre site by placing it in relative position to the river bend, the road from Fort Lyon, and the road's crossing of Sand Creek. Bonsall's distances conform within tolerance of modern calculations to place the massacre site near yet above the south bend of Sand Creek and probably within parts of modern Sections 10, 11, 13, 14, 15, 22, 23, 24, 25, and 30, Township 17 South, Range 46 West (see Accompanying Illustration 5). The marker placed by the Colorado Historical Society in 1950 stands in NW 1/4, Section 25, Township 17 South, Range 46 West.²⁹

On June 17, Bonsall's detachment moved on past the massacre site. Six or 7 miles north of their previous night's camp they reached a point designated on the map as "Three Forks," where the route split into three roads. Bonsall's journal entry suggests that neither he nor his

²⁹Kiowa County, Colorado, Plats 17-45 and 17-46. Kiowa County Courthouse, Eads, Colorado.

command were familiar with this part of the route. He wrote:

At Three Forks the left hand road crosses the creek and leads in the direction of Denver. An ox train from the Arkansas bound for Denver had lately passed over this road. The right hand road is the direct and shortest road to Cheyenne Wells, but thinking it bore too much East we took the center road, which after following for a mile was lost. We then went due North by the compass, over a high prairie [sic], with a gradual ascent, very little broken, and struck the Old Butterfield Stage Road eight miles from Three Forks, and sixteen miles from Cheyenne Wells.

The importance of identifying the Three Forks point, where the trail branched in three directions, lay in its relative distance, approximately 6+ miles, from the trail crossing at Sand Creek where Bonsall's detachment spent the night of June 16-17 just below (south) of the designated massacre site, and its distance of approximately 4+ miles north of the designated massacre site itself. Soil Conservation Service aerial photographs taken in the 1930s--some seventy years after the massacre--precisely confirm the Three Forks point as delineated on Bonsall's map (see Accompanying Illustration 4); moreover, what appears to be the road along the north (east) side of Sand Creek over which the Bonsall party traveled in 1868 is clearly shown. By following southeast along the road from Three Forks for the distance of 6+ miles that Bonsall showed, the likely site of the Sand Creek ford is reached about 6 1/3 actual miles away. Bonsall's map indicates that the area of the massacre began approximately 1/4 to 1/3 mile above

the ford and stretched along the stream for a distance of about 2 miles.³⁰

The Bonsall party returned from Cheyenne Wells on June 19, having sent General Sherman east by stage to the railhead of the Kansas Pacific line. The infantrymen returned to Three Forks by an alternate route that saved them a few miles. From there they followed their earlier trail past the scene of "Chivingtons Massacre," probably camping at the same places, and on back to Fort Lyon, which they likely reached late on June 20. Bonsall's map did not reflect for the return trip the same information about distances marched and times of arrival at particular places. In comparing information on the map with that contained in the Luke Cahill account, there appear to be discrepancies regarding the time of arrival at the massacre site on June 16 (Cahill said "around two o'clock p.m.," Bonsall 6 p.m.) and the amount of time spent there (Cahill stated that the men "laid over one day," whereas Bonsall indicated that they only spent one night there. Cahill was correct in stating that "it took one day from the battleground to the railroad," although he should have said "stage line" rather than "railroad." Yet Cahill's was a reminiscent account prepared as many as fifty years later, while Bonsall's journal and map constituted a documentary record officially rendered at the time. Regardless, in its content and simplicity of presentation the Bonsall map embraces the most directly compelling contemporary information yet found about the location of the Sand Creek Massacre site.

³⁰Soil Conservation Service aerial photos, Kiowa County, Colorado. Roll AG 298, frames 31, 32, 33, 46, 47, 48, and Roll AG 299, frames 05, 06, 07, 08, all taken October 17, 1936. NA, RG 114. Records of the Soil Conservation Service. Cartographic Archives Division.

IV. Findings Regarding the Extent of the Site of the Sand Creek Massacre

Extent as used here defines spacial limits that are inclusive of the broad sweep of an entire immediate historical event. As regards the Sand Creek Massacre, extent refers to the areal expanse of terrain, or range, over which occurred Chivington's attack on the village, the subsequent slaughter in the stream bed and in the sand pits of the stream bed above the village, and all related troop and Indian movements and actions, to include the general area of approach of the troops when in closing proximity to the village and the general areas of rising terrain bordering either side of the creek where the Indian pony herds grazed and over which many of the tribesmen fled to escape the onslaught or were pursued by soldiers. Most documentary material located in the course of the research concerning the extent of the massacre site appears in the testimony and recollections of people, both Indian and white, who were there on November 29, 1864. Information contained in these sources offers clues to the extent of the site, most commonly in the form of precise or approximate distances registered between points. The major component properties defining the extent of the Sand Creek Massacre site consist of (A) the area where Black Kettle's village stood; and (B) the area or areas where major killing took place in defensive sand pits excavated upstream from the village; together with © the intervening and immediately adjoining terrain where associated actions took place.

A. The Village Site

Virtually all sources that consider the position of the village mention that it stood on the north (east) side of Sand Creek, and one soldier testified that its edge was within fifty yards of

the creek.³¹ George Bent's two sketch maps of Black Kettle's village (Accompanying Illustrations 1 and 2) show its relative position on the north (east) side of Sand Creek at the time of the massacre, but the maps lack scale.³² The Cheyenne Little Bear noted that the village lay within 100 hundred yards of a bend to the north in Sand Creek.³³ Bent allowed that the site had been used by the tribes for many years previous, and that in the village "each band was camped by itself with its lodges grouped together and separated by a little open space from the camps of the other bands."³⁴ Estimates on the linear extent of the principal village, which contained approximately 100 lodges of the various bands, indicate only that it occupied an area of about one-quarter mile to one-half mile or more in length.³⁵ There is no known corresponding figure

³¹See testimony of John S. Smith, March 14, 1865, in *Massacre of the Cheyenne Indians*; Testimony of Captain Silas S. Soule, February 20, 1865, in *Sand Creek Massacre*, p. 23; Testimony of Second Lieutenant Joseph Cramer, February 28, 1865, in *Sand Creek Massacre*, p. 63; Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879. Typed copies in the Cary Collection, University of Denver, Box 4; Testimony of Private Alexander F. Safely, May 19, 1865, in *Sand Creek Massacre*, pp. 221-22.

³²A variant of the Bent village map in the University of Colorado Library Western History Collections now circulating is a second-generation tracing that shows the presence of a spring north of the village site. Yet the notation of "spring" and a designating "x" on this map is incorrect and were added by a scholar studying the site to his personal research photocopy of Bent's map along with annotations respecting area soil valences, etc. In the circulating copy, however, all annotations but the word "spring" and the "x" have been removed, making it appear that the spring notation might be George Bent's, which it is not. Jerome A. Greene, telephone communication with John H. Moore, March 11 and 30, 1999. The original tracing of the Bent map is in John H. Moore, *The Cheyenne Nation: A Social and Demographic History* (Lincoln: University of Nebraska Press, 198), p. 160. The subsequent tracing appears in Baker, *Aerial Archaeology at Sand Creek*, p.36, and in the second printing of same, pp. 36, 48.

³³Hyde, *Life of George Bent*, pp. 153-54.

³⁴*Ibid.*, p. 151.

³⁵Testimony of Private Alexander F. Safely, May 19, 1865, in *Sand Creek Massacre*, p. 222; Testimony of Sergeant Lucian Palmer, Company C, First Colorado Cavalry, April 1, 1865,

reflecting the approximate width of the camp. Separated by one-half to three-fourths of a mile downstream from the main camp stood a small group of perhaps as many as eight lodges said to belong to the Arapahos.³⁶ The presence of a spring near the village was essential because of the Indians' need to access a steady and reliable fresh water source; at this location at this particular time of year Sand Creek itself yielded some, but relatively little, water, and much of this was likely used for watering the horses and for other camp-related purposes. The area lies in what is termed a perennial stretch, a length of somewhat consistent groundwater percolation as opposed to flows generated otherwise by storms. This was undoubtedly the primary reason for the site's traditional use,³⁷ yet according to participant testimony at the time of the massacre the stream bed was practically dry. Cheyenne oral history has indicated the presence of a spring near the village site, and a 1997 overflight confirmed the presence of one in the area that could have been accessed by the people. Moreover, the most current topographic quadrangle map indicates this as well as other intermittent streams entering Sand Creek from the north in the area.³⁸ Given the limit imposed in Lieutenant Bonsall's map, which placed his trail ford of Sand Creek immediately below, or south of, the massacre site, and the description of Little Bear, who was in

in *Sand Creek Massacre*, p. 143.

³⁶Testimony of Private David H. Louderback, First Colorado Cavalry, March 31, 1865, in *Sand Creek Massacre*, p. 138; Interview with Eugene Weston, November 14, 1907. Cragin Notebook X, 11.

³⁷Donald L. Coffin, *Geology and Ground-Water Resources of the Big Sandy Creek Valley, Lincoln, Cheyenne, and Kiowa Counties, Colorado*. Geological Survey Water-Supply Paper 1843 (Washington: Government Printing Office, 1967), pp. 30, 32.

³⁸Baker, *Aerial Archaeology at Sand Creek*, pp. 47-48; USGS 7.5 Quadrangle, "North of Chivington, CO," 1982.

the village and who remembered that the stream turned north within 100 yards of the northernmost lodges of the village (together with other cumulative knowledge regarding area land use during and after the massacre, as discussed in appropriate sections below), the site of the village is postulated to be in the NW 1/4 of Section 24, Township 17 South, Range 46 West, and possibly extending onto the SW 1/4 of Section 13, Township 17 South, Range 46 West (see Accompanying Illustration 5). Furthermore, either of Bent's village maps corresponds well with this area in terms of directional alignments, the stream's approximate contours relative to that on the modern USGS map, and the comparable distance between the village and the area of the sand pits, as presented below.³⁹

B. The Sand Pits

Estimates of the distance between the village and the area of the sand pit defenses (including, from the records, the area to which the howitzers were drawn and emplaced) to the northwest differ widely in the various participant accounts of the encounter, ranging from a low of 300 yards to a high of 2+ miles, but with most coalescing at around 1/4 mile to 1 mile.⁴⁰

³⁹See "Interim Report No. 2," Map A; and Bent Map in the Indian Archives Division, Cheyenne/Arapaho Agency File, "Warfare," 1864-1885, Microfilm Roll 24. Oklahoma Historical Society.

⁴⁰"Interim Report No. 2," pp. 10, 12, 13, 14, 15-16, 18-21. The 300 yards figure was advanced by John S. Smith, an interpreter who had been in the village when attacked. Testimony of John S. Smith, March 8, 1865. U.S. Senate, 39 Cong., 2 sess., *Report of the Joint Special Committee. Condition of the Indian Tribes with Appendix (The Chivington Massacre)*. Report No. 156 (Washington: Government Printing Office, 1867.), p. 41. Within a week, Smith had revised his figure to "about a mile above the village." Testimony of John S. Smith, March 14, 1865 in *Massacre of the Cheyenne Indians*, p. 6. The 1/4-mile to 1-mile distance estimates are in the Testimony of Corporal James J. Adams, Company C, First Colorado Cavalry, April 4, 1865, in *Sand Creek Massacre*, p. 149; Report of Colonel John M. Chivington, December 16,

Chivington reported that the pits, or trenches as he called them, “were found at various points extending along the banks of the creek for several miles from the camp.”⁴¹ It is important to note that some participants who registered greater distances described them from the point of inception of the attack below the village, or perhaps from the lower part of the village, and sometimes included movements upstream beyond the point where the howitzers fired into the people in the sand pits to places where lesser action occurred.⁴² Considering the fact that many of the people fleeing the village led or carried children and elderly noncombatants through the sandy stream bed and besides had to throw up hurried defenses below the banks, the distance between the camp and the sand pits area would appear to have been smaller than greater. The majority of accounts describe the stream bed at the point where the sand pits were dug as measuring about 200 yards or more in width, although at least one placed the width at one-

1864, in *Massacre of Cheyenne Indians*, p. 49; Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879; and Testimony of Stephen Decatur, Company C, Third Colorado, May 8, 1865, in *Sand Creek Massacre*, p. 199. The 2 or 2+ mile figure was given by George Bent and Little Bear, both of whom were in the village and ran upstream to the sand pit area. See Bent to George Hyde, March 15, 1905, George Bent Letters, Coe Collection, Yale University Library; Bent to Hyde, April 14, 1906 (containing Little Bear’s account according to Bent), in *ibid.*; Bent to Hyde, April 30, 1913, in *ibid.*; and Hyde, *Life of George Bent*, pp. 152-54.

⁴¹*Massacre of the Cheyenne Indians*, p. 102.

⁴²See, for example, the testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, who, to the question, “How far did you move *from the position first assumed by you during the fight*, and in what direction?”, responded, “Up the creek perhaps three or four miles.” (Italics added.) *Sand Creek Massacre*, p. 64. Also, Chivington’s statement that “the Indians . . . fell back from one position to another for five miles, and finally abandoned resistance and dispersed in all directions and were pursued by my troops until nightfall. . . .” *Massacre of the Cheyenne Indians*, p. 49.

quarter mile.⁴³ Despite some variances, the preponderance of statements indicates that the banks of Sand Creek in this area measured anywhere from 6 to 15 feet high.⁴⁴ While most of the accounts agree that the Indians took refuge in the pits along both banks, some specify that the major defensive activity occurred along the west (south) bank.⁴⁵ And George Bent's two diagram maps of the village and massacre site (Accompanying Illustrations 1 and 2) show a length of women-dug pits along the base of the west bank, while three or more rifle pits occupied by warriors appear in the center of the stream bed. Based on the above factors, coupled with knowledge of the existence of sand banks of varying height in the area, it is conjectured that the site of the sand pits lies in the SE 1/4 Section 13 and in Section 14, Township 17 South, Range 46 West, approximately 1/2 mile or less above the suggested village

⁴³Howbert, *Memories of a Lifetime in the Pike's Peak Region*, p. 124; Quote of Cornelius J. Ballou in "The Sand Creek Affair," *National Tribune*, November 23, 1905. Major Anthony recalled that the bed of the creek was "from 200 to 500 yards wide." Testimony of Major Scott Anthony, First Colorado Cavalry, March 14, 1865. *Massacre of the Cheyenne Indians*, p. 22.

⁴⁴See Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879; C. B. Horton, "Survivor Tells of the 'Chivington Massacre,'" *Denver Times*, July 24, 1903; Howbert, *Memories of a Lifetime in the Pike's Peak Region*, p. 124. Anthony stated that "the banks upon the side of the creek were two or three feet high, in some places as high as ten feet. . . ." Testimony of Major Scott Anthony, First Colorado Cavalry, March 14, 1865. *Massacre of the Cheyenne Indians*, p. 22.

⁴⁵Coffin wrote that "it was along the banks of the creek, but more especially the west bank, that most of the fighting took place." "There was a general scattering . . . up the creek and to the banks, especially to the west bank. . . ." See Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879. Participant Charles E. Clark described the features as "lines of rifle pits in the bed of Sand Creek, along the base of the bank. . . ." *St. Louis Globe-Democrat*, September 15, 1876. For references to the action occurring along both banks, see "Interim Report No. 2," pp. 19-22.

site (see Accompanying Illustration 5).⁴⁶

Two braces of howitzers took part in the action at the sand pits. After a few salvos discharged during the opening of the attack, the howitzers, two of which belonged to the First Colorado and two to the Third, were brought up the creek and from positions on opposite sides fired into the areas of the occupied sand pits, apparently from several different vantages and at alternate times.⁴⁷ On one of his schematic maps, Bent placed two of the guns on the north (east) side of Sand Creek, a short distance from the bank and opposite of, yet slightly below (south), the location of the pits.⁴⁸ Although unspecified, the angles of fire of the pieces had to have been such as to prevent direct firing into the troops on the banks who were leveling small arms fire into the pits.⁴⁹ As for the construction of the sand pits, one soldier participant described them as

⁴⁶In 1887, the community of New Chicago, or Upper Water Valley, a prospective railroad boomtown, stood briefly in this area. Land Records, Kiowa County Abstract Company, Eads, Colorado; *Kiowa County Press*, January 26, 1917.

⁴⁷For references regarding the dispersal and use of the artillery pieces, which is somewhat murky as to how many of the four were actually employed, see the statements compiled in "Interim Report No. 2," pp. 12-15.

⁴⁸Bent map, ca. 1905-14, Indian Archives Division, Cheyenne/Arapaho Agency File, "Warfare," 1864-1885, Microfilm Roll 24. Oklahoma Historical Society, Oklahoma City.

⁴⁹For this concern, see Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *Sand Creek Massacre*, pp. 49-50. One of Bent's maps indicated that the troops effectually formed a total cordon around the area, to include the stream bed above and below the pits, as they directed small arms fire against the tribesmen refuged there. Bent map, ca. 1905-14, Indian Archives Division, Cheyenne/Arapaho Agency File, "Warfare," 1864-1885, Microfilm Roll 24. Oklahoma Historical Society, Oklahoma City. The small arms used by the troops at Sand Creek reflected a wide range of weapons. Ordnance issues to the Third Colorado Cavalry in the weeks preceding the massacre consisted of the following types: Austrian rifles, Harper's Ferry muskets, Harper's Ferry rifles (Model 1841 Mississippi?), Model 1840 U.S. rifles (?), Whitney revolvers, and Springfield rifles. Among weapons of the First Colorado Cavalry were Harper's Ferry muskets, Austrian rifles, and "citizen rifles." Ammunition consisted of cartridges for these weapons as well as for Navy pistols and Sharps rifles, with ball

being “deep enough for men to lie down and conceal themselves, and load their guns in; some of them I should think were deeper than three feet.”⁵⁰ Chivington said that the “excavated trenches” measured “two or three feet deep.”⁵¹ And a veteran soldier recalled that “along the base of the bank they had dug a trench four feet deep, throwing the dirt forward, which made a formidable breastwork. . . . Along the top of the bank they had dug rifle pits about 50 feet apart, which would shield four or five men each.”⁵² At least two other statements support the notion of

and conical bullet calibers of .36, .44, .52, .54, .58, and .69. Data provided by Mindy Ellswick as compiled from various special orders, Headquarters, District of Colorado, August-October, 1864. Records of the Colorado Adjutant General's Office, Denver. On November 9 it was directed that the Third Colorado receive 74,000 rounds of ammunition for carbines, muskets, and Army pistols. Assistant Adjutant General Joseph S. Maynard to First Lieutenant Charles H. Hawley, November 9, 1864. NA, RG 393, Part 3. Entry 3254, vol. 2. In addition, on the day before the massacre troops of the First Colorado Cavalry received issues of “Three thousand Carbine Cartridges, One thousand ball Army Pistol Cartridges, [and] One Remingtons Army Pistol . . . [as well as] One thousand Carbine (Starr) Cartridges.” Special Orders No. 252, Headquarters, Fort Lyon, November 28, 1864. NA, RG 393, Part I. Entry 2632, Vol. 459 (Fort Lyon Special Orders). The spherical case was discharged by the 12-pounder howitzer using a friction primer. Each round contained a pewter 5-second-limit Bormann fuse. The wall of the shell measured .475 of an inch thick, and each shell contained about eighty .69-inch caliber lead balls. Farrow, *Farrow's Military Encyclopedia*, III, 155; Warren Ripley, *Artillery and Ammunition of the Civil War* (New York: Van Nostrand-Reinhold Company, 1970), pp. 268-69. Some of the howitzer ammunition likely used at Sand Creek had been transferred from Fort Garland to Fort Lyon apparently in July, 1864. Special Orders No. 11, Headquarters, District of Colorado, June 29, 1864. NA, RG 393, Part 3. Entry 3254, Vol. 2.

⁵⁰Testimony of Stephen Decatur, Company C, Third Colorado, May 8, 1865, in *Sand Creek Massacre*, p. 199. Decatur believed that the Indians had dug the pits previously. “They were dug under the banks, and in the bed of the creek, and, in fact, all over, where there was a little mound or bunch of grass or weeds favorable for concealment. They were dug . . . from three to four feet wide, some six feet long and longer.” *Ibid.*, p. 196.

⁵¹Chivington in *ibid.*, p. 102.

⁵²Quote of Cornelius J. Ballou in “The Sand Creek Affair,” *National Tribune*, November 23, 1905.

the Indians entrenching along the tops of the bluffs.⁵³

C. Other Factors of Extent

Besides the unquestionable core areas of the village site and the major concentration of sand pits, other elements contributing to determine the extent of the massacre site would include the location of the detached, presumably Arapaho, camp; the pony herd areas; the area of the approach of the army columns, together with the expanse they occupied while ascending Sand Creek to the area of the sand pits; the points of the initial howitzer emplacements; the area of other offensive and defensive actions farther upstream along the creek as well as over the surrounding countryside; and the bivouac area of Chivington's troops over the two nights following the massacre. At least one official report and two participant accounts (one a reminiscent statement rendered some forty-three years later) specify the location of a lesser camp of as many as eight lodges apparently detached and from ½ to ¾ of a mile below the main village and presumably on the north side of the stream.⁵⁴ One of George Bent's site maps locates the major Indian pony herds on land away from the south (west) bank of Sand Creek

⁵³See Testimony of Captain Preston Talbot, Company M, Third Colorado, in *Massacre of the Cheyenne Indians*, p. 207; and Testimony of First Lieutenant James Dean Cannon, Company K, First Colorado, in *Sand Creek Massacre*, p. 111.

⁵⁴Record of Events of Company K, First Colorado Cavalry, Muster Roll, November-December, 1864. NA, RG 94, Microfilm Publication M594, Roll 4; Testimony of Private David H. Louderback, First Colorado Cavalry, March 31, 1865, in *Sand Creek Massacre*, p. 138; Interview with Eugene Weston, November 14, 1907. Cragin Notebook X, 11. Weston identified the camp as belonging to Left Hand's Arapahos. However, George Bent wrote George Hyde fifty-one years later that One Eye's Arapaho camp stood *up* the creek and *north* of the main village. Bent to Hyde, January 20, 1915. George Bent Letters, Coe Collection, Yale University Library.

opposite the village (Accompanying Illustration 1). According to Bent, some of these animals had been driven off during the night by Chivington's Mexican scouts. Those remaining apparently ranged some distance south and east of the camp, for First Colorado troops encountered them during their approach that morning at least 1 mile east. Estimates of the number of ponies and mules captured range from 450 to 600.⁵⁵

As for the area of the army's approach to the village, the documents agree that Chivington's command marched into the area from the south and reached the proximity of the camp coming generally from the southeast. The troops possibly first viewed the Indian encampment from an eminence some 5 miles away,⁵⁶ then continued rapidly forward until they reached a hill from which the village could be seen from 1 to 2 miles distant.⁵⁷ The command descended to the broad creek bottom and proceeded to a point perhaps ½ mile from the village

⁵⁵Bent map, ca. 1905-14 (Map A in "Interim Report No. 2"), Western History Collections, University of Colorado Library, Boulder; Report of Major Scott Anthony, First Colorado Cavalry, December 1, 1864, in *Massacre of the Cheyenne Indians*, pp. 53-54; Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *Sand Creek Massacre*, p. 48; Testimony of Corporal James J. Adams, Company C, First Colorado Cavalry, April 4, 1865, in *ibid.*, p. 149; Bent to Hyde, January 20, 1915. George Bent Letters, Coe Collection, Yale University Library; Howbert, *Memories of a Lifetime in the Pike's Peak Region*, pp. 122-24. Report of Colonel Chivington, November 29, 1864, in *War of the Rebellion*, Series I, vol. 41, part I, p. 948. A group of twenty ponies was apparently sighted about 4 miles "to the right," or north, of the village. Captain T.G. Cree to Colonel George L. Shoup, Third Colorado Cavalry, December 6, 1864, in *Massacre of the Cheyenne Indians*, p. 53. Bent recalled that some of the escaping Indians managed to get to herds 3 or 4 miles upstream. Bent to Hyde, January 20, 1915. George Bent letters, Coe Collection, Yale University Library.

⁵⁶Unidentified correspondent's (George A. Wells?) letter, *The Miner's Register*, January 4, 1865.

⁵⁷Testimony of Second Lieutenant Clark Dunn, Company E, First Colorado Cavalry, in *Massacre of Cheyenne Indians*, p. 55; Howbert, *Memories of a Lifetime in the Pike's Peak Region*, p. 122-24.

when the soldiers halted to dispense with unwieldy luggage and prepare for the attack.⁵⁸

Following that, they struck out through the deep sand toward the village. At a point approaching the village, the command split, with First Lieutenant Luther Wilson's battalion moving across to the north (east) side of the creek to a point northeast of the village, while Major Anthony advanced to a point on the south (west) bank southeast of the camp. Colonel George L. Shoup's Third Colorado Cavalry followed and gravitated to the right and ultimately came in on the rear of Wilson's troops on the north bank. Both Wilson's and Anthony's units were approximately 100 yards from the lodges when they opened fire with small arms on the village and its occupants.⁵⁹ As the action unfolded and the villagers fled upstream, the troops pursued them generally in their relative positions, but "in no regular order," on either side of Sand Creek as they shot in a cross-fire pattern at the running people. It was reported that the pursuing bodies of soldiers were "two or three hundred yards apart" during this advance.⁶⁰

During the opening attack, at least some of the four howitzers discharged rounds toward the village that dispersed the tribesmen and perhaps sparked their initial flight upstream and

⁵⁸Testimony of Stephen Decatur, Company C, Third Colorado, May 8, 1865, in *Sand Creek Massacre*, pp. 194-95; Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879; Interview, Theo. Chubbuck, August 30, 1886. Hubert H. Bancroft Collection. Western History Collections, University of Colorado Library; C. B. Horton, "Survivor Tells of the 'Chivington Massacre,'" *Denver Times*, July 24, 1903.

⁵⁹Testimony of Captain Silas S. Soule, February 20, 1865, in *Sand Creek Massacre*, pp. 11, 13; Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *ibid.*, pp. 48, 64.

⁶⁰Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *ibid.*, p. 64; Testimony of First Lieutenant James Dean Cannon, Company K, First Colorado, in *ibid.*, p. 114; Testimony of John S. Smith, March 14, 1865 in *Massacre of the Cheyenne Indians*, pp. 5-6

away from the soldiers. Although the precise location of the guns when they fired is not yet known, the recollections of officers and soldiers indicate that they remained some distance behind, yet in the general proximity of their respective units, as the troops closed on the encampment. Accounts of members of the First Colorado Cavalry related that Chivington ordered their battery to fire from a high point slightly left (south) of the “Fort Lyon battalion” on the south bank of the creek.⁶¹ Meantime, the guns of the Third Colorado Cavalry battery advanced so far on the north bank, though still well below the village, that Major Anthony’s troops pulled themselves to their left as a precautionary measure. Both batteries evidently discharged ordnance, but only the rounds delivered from the Third battery seemingly took effect in or near the village.⁶² Given the effective range of 800 yards and the maximum range of 1200 yards for mountain howitzers firing spherical case at 5 degrees of elevation, a zone of expectancy where artillery-related artifactual evidence (e.g., friction primers, etc.) could logically appear might reasonably be established within a radius of 500-1500 yards as scaled

⁶¹Testimony of Sergeant Lucian Palmer, Company C, First Colorado Cavalry, April 1, 1865, in *Sand Creek Massacre*, p. 143; Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *ibid.*, pp. 40-50. Jacob Downing recalled years later that “a Howitzer was planted on the side of the hill to shell the camp. . . .” *The Denver Post*, December 31, 1903.

⁶²Testimony of Stephen Decatur, Company C, Third Colorado, May 8, 1865, in *ibid.*, pp. 194-95; Testimony of Second Lieutenant Joseph A. Cramer, First Colorado Cavalry, February 28, 1865, in *ibid.*, p. 63; Interview, Theo. Chubbuck, August 30, 1886. Hubert H. Bancroft Collection. Western History Collections, University of Colorado Library; David C. Mansell, Company A, Third Colorado Cavalry, in *Winners of the West*, December 15, 1925. One account stated that Chivington “ordered us to go to a high hill and turn our artillery fire loose on the village. We went to the place ordered, but . . . we refused to unlimber our guns, and so we sat there and watched the massacre.” Isaac Clarke, First Colorado Cavalry, in *American Pioneer*, pp. 39, 41.

from points within the suspected area of the village.⁶³ (See Accompanying Illustration 5.)

While the attack and massacre ensued for a duration of seven or eight hours, collateral action occurred throughout a wide swath of the surrounding country as some of the tribesmen attempted to flee the scene of the killing and scrambled for safety in all directions. Some headed southwest across Sand Creek in their flight and were pursued by soldiers; others fled northeast of the village where detachments of cavalymen ran them down until dark.⁶⁴ Following the initial attack and the confrontation in the sand pits, squads of cavalry scoured the countryside seeking escapees, and Major Anthony reported that “the dead Indians are strewn over about six miles.”⁶⁵ Nonetheless, many of the men, women, and children who had been in the village and the sand pits managed somehow to elude the pursuit, especially after night fell, and ultimately journeyed northeast some 50 miles to find succor among friends and relatives camped in the Smoky Hill River country.

Regarding the area where the troops bivouacked following the massacre, it was probably

⁶³These howitzer ranges appear in the “Table of Fire,” ca. 1860, glued on the inside of the lids of period limber chests that accompanied the pieces. Information provided by Norman Hughes, Denver, Colorado. The 800-yards effective range, but at elevation of 4 degrees 30 seconds, appears in *The Ordnance Manual for the Use of Officers of the United States Army* (Philadelphia: J.B. Lippincott and Company, 1862), p. 386.

⁶⁴Captain T.G. Cree to Colonel George L. Shoup, Third Colorado Cavalry, December 6, 1864, in *Massacre of the Cheyenne Indians*, p. 53; Report of Colonel George L. Shoup, Third Colorado Cavalry, December 7, 1864, in *Massacre of the Cheyenne Indians*, p. 51; Testimony of Corporal James J. Adams, Company C, First Colorado Cavalry, April 4, 1865, in *ibid.*, p. 149; Testimony of John S. Smith, March 14, 1865 in *ibid.*, pp. 5-6, 8; Report of Colonel John M. Chivington, December 16, 1864, in *ibid.*, p. 49; account of Little Bear in Hyde, *Life of George Bent*, pp. 153-54.

⁶⁵Report of Major Anthony, December 2, 1864, in *War of the Rebellion*, Series I, vol. 41, part I, p. 952.

somewhere removed from, yet close to, the scenes of the bloodshed. Chivington reported that he “encamped within sight of the field,” and other soldiers noted that the camp was “in the upper end of the Indian village” and that it took “the form of a hollow square.”⁶⁶ While it could have been laid out anywhere in the vicinity, a place with fairly level terrain and available water would likely have proved attractive for Chivington’s 700-plus-man force. Although additional direct documentary evidence for placing the bivouac site has not been located, the fact that Chivington and others datelined their initial field reports at “South Bend of Big Sandy” and “Camp South Bend of Big Sandy,” would suggest that the area below the present marker encompassing SE 1/4 Section 24 and NE 1/4 Section 25 (Township 17 South, Range 46 West), together with SW 1/4 Section 19 and NW 1/4 Section 30 (Township 17 South, Range 45 West), might well constitute the site of Chivington’s post-massacre encampment.⁶⁷ (See Accompanying Illustration 5.)

Taking into account the above factors relating to the extent of the massacre site, the area incorporating the village and the principal concentration of sand pits upstream from it comprises a linear area of perhaps 1½ miles, an estimate that conforms closely with the circa 2-mile length registered by Lieutenant Bonsall. Adding to this the area of immediate approach and initiating action by the troops below the village would extend the linear area southeast by

⁶⁶Report of Colonel John M. Chivington, December 16, 1864, in *Massacre of the Cheyenne Indians*, p. 49; Testimony of Corporal James J. Adams, Company C, First Colorado Cavalry, April 4, 1865, in *ibid.*, p. 150; Morse H. Coffin, letters to the *Colorado Sun* (Greeley), December, 1878-February, 1879.

⁶⁷See Chivington to Major General Samuel R. Curtis, November 29, 1864, in *War of the Rebellion*, Series I, vol. 41, part I, p. 948; Dunn to Chivington, November 30, 1864, in *ibid.*, p. 955; Kennedy to Chivington, November 30, 1864, in *ibid.*, pp. 954-55. One official document stated that the troops “returned to the battlefield & encamped.” Record of Events of Company E, First Colorado Cavalry, Muster Roll, November-December, 1864. NA, RG 94, Microfilm Publication M594, Roll 4

approximately 2 miles, while action along the stream above and northwest of the sand pits likely took place for another couple of miles or so, presenting a possible overall length of extent of 5½ miles. More difficult to ascertain because of the even greater lack of clarity of events there is the corresponding breadth of the area of action on either side of Sand Creek, an expanse that would encompass the area of the herds, the gun emplacement positions, and the auxiliary movements of Indians and soldiers over the landscape away from the central massacre site. Knowledge that the stream bed measured as many as 200 yards across in places and that the troops ascending either side from the village to the sand pits were perhaps as many as 300 yards apart suggests a width for the linear corridor of at least ½ mile, although 1½ miles might more appropriately incorporate areas where some of the associated actions and sites addressed above occurred. (Viewshed considerations, which would conceivably expand the resource boundary, are not addressed in this report.) Of course, in its broadest sense the wide-ranging activities of the troops and Indians away from the village and stream bed took place at undetermined distances away from the primary action. When asked in formal inquiry his judgment of the full extent of the Sand Creek site, Captain Soule of the First Colorado Cavalry succinctly replied, “about four or five miles up the creek, and one or two each side.”⁶⁸ From all appearances, he was close on the mark.

⁶⁸Testimony of Captain Silas S. Soule, February 20, 1865, in *Sand Creek Massacre*, p. 22.

V. Conclusion

The archival record leaves little doubt that the Sand Creek massacre took place in the area of the South Bend of Sand Creek, though not precisely at the bend. Rather, the evidence gleaned from the Bonsall map, the two Bent site maps, and a host of participant testimony and other documents leads to the conclusion that the major resource property of the village likely is upstream, probably in present Sections 24 and 13. As well, while the exact site of the sand pits, the other major resource property where so many people were killed, is presently not conclusively known, a projection based on archival materials tentatively indicates that this encounter occurred in Sections 13 and 14.⁶⁹ Confirmation of these locations will be determined archeologically. To recapitulate, based on available records and literature the area of the location and extent of the immediate massacre site, to include the likely sites of all associated features and actions, measures approximately 5 ½ miles long by 1 ½ miles wide in a swath running diagonally northwest-to-southeast and enclosing throughout that distance the linear

⁶⁹During the research phase of this study the historians sought information regarding relic collecting activities that have taken place in the area evidently since shortly after the turn of the century. Also, interviews conducted with area residents or past residents acquainted with such activity determined that many people used to hunt arrowheads and other artifacts there. *Kiowa County Press*, September 21, 1906; *Pueblo Chieftain*, March 22, 1998; Lillie A. Herzog, "History of Kiowa County," in Thomas S. Chamblin (ed.), *The Historical Encyclopedia of Colorado* (Denver: Colorado Historical Association, 1957), pp. 186-88. While most references to relic collecting at the site are nonspecific as to its location, at least one by a long-time collector included the notation that "the battle field [sic] is located some two miles north of where the stone marker would indicate." *The Lamar-Tri-State Daily News*, February 23, 1963. (For other information about artifact collecting in the vicinity, see "Interim Report No. 3," pp. 9-10.) Another indicator from local sources consisted of references to the location of the headgates of the Chivington Canal, an irrigation facility built in ca. 1910, as being on the massacre site. The headgates of the structure stood in the SE 1/4 of Section 24. Roleta Teal Papers, ca. 1960s-1970s (M76-1387), Western History Department, Denver Public Library; Colorado State Engineer's Office, Division of Water Resources, various records, notably Water Filing No. 4101 (Chivington Canal).

course of Sand Creek. Included within this boundary are parts of Sections 10, 11, 13, 14, 15, 22, 23, 24, 25, Township 17 South, Range 46 West, and parts of Sections 19 and 30, Township 17 South, Range 45 West (see Accompanying Illustration 5).

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