US Army Corps of Engineers
HUNTSVILLE ENGINEERING AND SUPPORT CENTER

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR
FORMERLY USED DEFENSE SITES
ORDNANCE AND EXPLOSIVES

ARCHIVES SEARCH REPORT

FINDINGS

CAMP LOCKETT

CAMPO, CALIFORNIA

Project Number – JA09CA707801

AUGUST 2001

Prepared by
US ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

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1.0 INTRODUCTION

1.1 Authority

In 1986, Congress established the Defense Environmental Restoration Program (DERP) at 10 United State Code (USC) 2701 et seq. This program directed the Secretary of Defense to "carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary."

In March 1990, the Environmental Protection Agency (EPA) issued a revised National Contingency Plan (NCP). Under 40 Code of Federal Regulations (CFR) 300.120, EPA designated the Department of Defense (DoD) to be the removal response authority for incidents involving DoD military weapons and munitions under the jurisdiction, custody and control of DoD.

Since the beginning of this program, the U.S. Army Corps of Engineers acts as the agency responsible for environmental restoration at Formerly Used Defense Sites (FUDS). Beginning in 1990, the U.S. Army Engineering and Support Center, Huntsville (CEHNC) serves as the Center of Expertise (CX) and Design Center for Ordnance and Explosives.

1.2 SUBJECT

The former Camp Lockett site was originally used for protection of the US-Mexican Border, then for the training of troops during World War II. It is located in Campo, San Diego County, California, about 40 miles east of the City of San Diego. Subsequent to its use for training, portions of the site was occupied by the Mitchell Convalescent Hospital and a prisoner-of-war camp.

1.3 PURPOSE

The Archives Search Report (ASR) compiles information obtained through historical research at various archives and records holding facilities, interviews with persons associated with the site or its operations, and personal visits to the site. All efforts were directed towards determining possible use or disposal of ordnance or chemical warfare materials on the site. Particular emphasis was placed on establishing the types, quantities, and areas of disposal. Information obtained during this process was used in developing recommendations for further actions at the site.

1.4 SCOPE

The entire site of the former military post, consisting of 7,111.748 acres, was evaluated in assessing the potential for OE contamination. It is designated as DERP-FUDS Project No. J09CA707801.

This report presents the history of the site, description and characterization of the immediate surrounding area, real estate ownership information, findings of a visual field survey, and OE site analysis, including an evaluation of potential ordnance contamination. A separate **Executive Summary** supplements these ASR FINDINGS and furnishes the CONCLUSIONS and RECOMMENDATIONS.

2.0 PREVIOUS INVESTIGATIONS

2.1 CORPS OF ENGINEERS DOCUMENTS

Under the Defense Environmental Restoration program (DERP), the U.S. Army Corps of Engineers, Los Angeles District had an Inventory Project Report (INPR) prepared, dated 28 January 1999. The INPR determined the site to be eligible for the DERP-FUDS, identified a potential for OE contamination and recommended a RAC score 3 for the site. Based on these findings an OE project (J09CA707801) was proposed and approved. A copy of the INPR is included in Appendix D.

2.2 OTHER REPORTS

No other investigative reports were noted.

3.0 SITE DESCRIPTION

3.1 LAND USAGE

3.1.1 Location

The former Camp Lockett is located in Campo, San Diego County, California. Situated about 40 miles west of the City of San Diego, the US-Mexican Border forms the southern boundary of the 7,111.748 acres site.

3.1.2 Past Use

Prior to DoD acquiring the site, land usage was cattle ranching, dairy farming and agricultural. Also included in the acquisition was a portion of the town of Campo.

3.1.3 Present Use

The majority of the former cantonment area is owned by the City of San Diego. BLM owns a significant portion of the western FUDS, while the remainder of the site is in private ownership. Land use includes housing, schools, community and commercial purposes.

3.2 CLIMATIC DATA

The closest NOAA climatological station is in San Diego, California. The Camp Lockett site is only about 40 miles east (inland) of downtown San Diego. The following climatological narrative is for the San Diego station and the surrounding area. When reading the narrative keep in mind that the climatological station is on the coast at elevation 13 feet NGVD. Though the Camp Lockett site is only 40 miles from San Diego, it is located in the Laguna Mountains at elevation 3000 ft. NGVD or so. Table 1 contains climatological data for the NOAA station in San Diego, California. Table 2 contains available data from the Campo weather station located at Campo, California. The Campo data is provided by the National Climatic Data Center, Western Region. The City of Campo, California is within the boundaries of the Camp Lockett study site area. The prevailing winds and weather at the San Diego Climatological station are tempered by the Pacific Ocean, with the result that summers are cool and winters warm in comparison with other places along the same general latitude. Temperatures of freezing or below have rarely occurred at the station, but hot weather of 90 degrees or above, is more frequent.

Dry easterly winds sometimes blow for several days at a time, bringing temperatures in the 90's and at times even in the 100's. Hot winds are predominant in the fall, and the highest temperatures occur in the months of September and October. Records show that over 60 percent of the days with 90 degrees or higher have occurred in these two months.

High temperatures are almost invariable accompanied by very low relative humidities, which often drop below 20 percent and occasionally below 10 percent.

A marked feature of the climate is the wide variation in temperatures within short distances. In nearby valleys daytimes are much warmer in summer and nights noticeably cooler in winter, and freezing occurs much more frequently than in the city. Although records show unusually small daily temperature ranges, only about 15 degrees between the highest and lowest readings, a few miles inland these ranges increase to 30 degrees or more. The highest recorded temperature at the Campo weather station was 111 degrees and occurred in the month of September. The lowest temperature recorded was 10 degrees in the month of January.

Strong winds and gales associated with Pacific, or tropical storms, are infrequent due to the latitude. The seasonal rainfall is about 10 inches, but increases with elevation and distance from the coast. The average annual precipitation at the Campo weather station is 14.85 inches. Most of the precipitation falls in winter, except in mountains where there is an occasional thunderstorm. Snow is rare with an average annual snowfall of just 0.5 inches at the Campo weather station. The highest recorded snowfall at the Campo station measured 14 inches, with all of it occurring during the month of January 1949. The highest recorded rainfall at the Campo station of 18.61 inches occurred in the month of January 1993. The one-day maximum rainfall occurred in November 1965 and measured 4.26 inches.

CLIMATOLOGICAL DATA FOR SAN DIEGO, CALIFORNIA TABLE 1

Month	Temperature		Precipitation	Wind	
	Average Minimum (°F)	Average Maximum (°F)	Average (Inches)	Average Speed Miles/Hour	Average Direction
January	48	65	2.2	7	NW
February	50	66	1.6	8	WNW
March	52	66	1.9	9	WNW
April	55	68	0.8	9	WNW
May	58	69	0.2	8	WNW
June	61	72	0.1	8	WNW
July	65	76	T	8	WNW
August	66	77	0.1	8	WNW
September	65	77	0.2	8	WNW
October	60	74	0.4	8	WNW
November	53	71	1.1	8	WNW
December	49	66	1.4	7	NW
Average	57	71	9.9	8	WNW

Source: International Station Meteorological Climate Summary, September 1996. Jointly produced by: Fleet Numerical Meteorology and Oceanography Detachment, National Climate Data Center, and USAFETAC OL-A.

CLIMATOLOGICAL DATA FOR CAMPO, CALIFORNIA TABLE 2

Month	Temperature		Precipitation	Wind	
	Average Minimum (°F)	Average Maximum (°F)	Average (Inches)	Average Speed Miles/Hour	Average Direction
January	33.7	61.8	3.19	-	-
February	33.8	63.7	2.63	-	-
March	35.0	65.7	2.53	-	-
April	36.9	71.3	1.10	-	-
May	40.6	77.1	0.35	-	-
June	44.5	86.3	0.07	-	-
July	52.1	93.7	0.33	-	-
August	52.8	93.5	0.50	-	-
September	48.7	89.0	0.37	-	-
October	41.8	79.8	0.54	-	-
November	36.2	69.2	1.36	-	-
December	32.7	62.5	1.88	-	-
Average	40.7	76.1	14.85	-	-

Source: National Climatic Data Center – Western Region.

3.3 GEOLOGY AND SOILS

3.3.1 Geology

The former Camp Lockett site is located in the Peninsular Ranges section of the Lower California physiographic province. This province is characterized by a dissected, westward-sloping, granite upland. The Peninsular Ranges belong mostly to Mexico; only the northern end of the ranges reaches into California. The province has distinct northwest grain expressed by its larger mountains, to the east of the site, and its longer valleys.

The province is underlain by large homogenous batholiths. These batholiths are igneous intrusive bodies which cooled slowly and deeply, allowing the molten material to crystallize into coarse-grained rock. The batholiths are accompanied by many dikes, narrow sheet-like igneous bodies which intruded into cracks in the rock.

Younger rocks found in the province are largely sedimentary, partly marine, and partly terrestrial, and range in age from late Cretaceous to Pleistocene. Marine rocks are exposed mostly in the Santa Ana Mountains, to the north of the site (Sharp 1976).

3.3.2 Soils

The soils of the former Camp Lockett were derived from both the igneous bedrock and the overlying marine and alluvial sediment, which fills the basins in the bedrock. The soils are mostly sandy and fine-grained. The soils are deep and are rapidly permeable.

There is little or no potential for frost development in the soil at the Camp Lockett site.

3.4 HYDROLOGY

3.4.1 Surface Water

The Camp Lockett site is located in San Diego county, California about 40 miles east of downtown San Diego at Campo, California. The site is within the Coast Ranges of the Pacific Mountain Division of the Western United States. The average depth of frost penetration is less than one inch with an extreme frost penetration of about an inch or so. The site is within the Cottonwood – Tijuana watershed. The overall health of the watershed has an Index Watershed Indicator (IWI) of 1. A watershed rating of 1 has a better water quality condition with a low vulnerability to stressors such as pollutant loadings. The Environmental Protection Agency provides the IWI rating for the watershed.

Warm dry soil with a mean annual soil temperature higher than about 47 degrees F predominates the area where the site is located. Dry soils lack moisture for plant growth for long periods. The site is within the Arid Region of the United States, which makes it vulnerable chiefly to droughts of several years duration. The elevation of the area ranges between a high of about 3680 feet NGVD to a low of about 2600 feet NGVD.

Campo Creek is the primary channel for surface water drainage and flows in a generally southwestern direction. The Cottonwood – Tijuana watershed eventually flows west and empties into the Atlantic Ocean at Imperial Beach.

The United States Geological Survey maintains a stream gage on Campo Creek near Campo, California. The gage datum is at elevation 2179.08 feet NGVD with a drainage area of 85 square miles. The maximum peak flow at the gage was recorded at 1580 cfs during the month of January of 1993. The stage reading of 6.86 is equivalent to an elevation of about 2186 feet NGVD. Flooding at the site would likely result from localized heavy rainfall and be of short duration.

3.4.2 Ground Water

There are no significant sources of groundwater underlying the site. Surface water needs to be used as a water source for many people. Surface water, in many instances, has to be transported from distant sources, like reservoirs, to meet demand (Planert and Williams 1995).

3.5 ECOLOGY

The information provided for this site has been compiled from the U.S. Fish and Wildlife Service, and the State of California Department of Game and Fish.

The U.S. Fish and Wildlife Service have indicated that the following Federally listed threatened or endangered species may occur on or near Camp Lockett: arroyo toad (*Bufo microscaphus californicus),* endangered; mountain yellow-legged frog (*Rana muscosa),* proposed endangered; California brown pelican (*Pelecanus occidentalis californicus),* endangered; light-footed clapper rail(*Rallus longirostris levipes),* endangered; western snowy plover *(Charadrius alexandrinus niv (Scien osusame*), threatened; California least tern *(Sterna antillarum browni),* endangered; Southwestern willow flycatcher (*Empidonax traillii extimus),* endangered; coastal California gnatcatcher (*polioptila californica californica),* threatened; least bell's vireo (*Vireo bellii pusillus*), endangered; Southern steelhead-Southern California esu (*Oncorhynchus mykiss irideus),* endangered; *ssouthernr tific name),* mohave tui chub (*Gila bicolor mohavensis),* endangered; desert pupfish (*Cyprinodon macularius),* endangered; unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni),* endangered; tidewater goby (*Eucyclogobius newberryi),* endangered; Pacific pocket mouse (*Perognathus longimembris),* endangered; Stephen's kangaroo rat *(Dipodomys stephensi),* endangered; ,*sma*rndanathreatened or endangered; Peninsular bighorn sheep (*Ovis Canadensis cremnobates),* endangered; San Diego fairy shrimp *(Branchinecta sandiegonensis),* endangered; Riverside fairy shrimp (*Streptocephalus woottoni),* endangered; quino checkerspot butterfly (*Euphydryas editha quino),* endangered; San Diego button-celery (*Eryngium aristulatum var parishii),* endangered; San Diego ambrosia (Ambrosia pumila), proposed endangered; Encinitas baccharis (*Baccharis vanessae),* threatened; otay tarplant (*Deinandra conjugens),* threatened; Nevin's barberry (*Berberis nevinii),* endangered; Gambel's water cress (*Rorippa gambelii),* endangered; del mar manzanita (*Arctostaphylos glandulosa ssp crassifolia),* endangered; Peirson's milk-vetch (*Astragalus magdalenae var peirsonii),* threatened; coastal dunes milk-vetech (*Astragalus tener var titi),* endangered; San Diego thorn-mint (*Acanthomintha ilicifolia),* threatened; willowy monardella (*Monardella linoides ssp viminea),* endangered; San Diego mesa mint (*Pogogyne abramsii),* endangered; otay mesa mint (*Pogogyne nudiudcula),* endangered; Orcutt's spineflower (*Chorizanthe orcuttiana),* endangered; spreading navarretia (*Navarretia fossalis),* threatened; salt marsh bird's break (*Cordylanthus maritimus ssp maritimus),* endangered; Mexican flannelbush (*Fremontodendron mexicanum),* endangered; thread-leaved brodiaea (*Brodiaea filifolia),* threatene California orcutt grass (*Orcuttia californica),* endangered; San Bernardino blue grass (*Poa atropurpurea)* endangered.

The State of California Department of Fish and Game have indicated that the following State listed threatened or endangered species may occur on or near Camp Lockett: California brown pelican (*Pelecanus occidentalis californicus),* endangered; California black rail (*Laterallus jamaicensis coturniculus),* threatened; light-footed clapper rail(*Rallus longirostris levipes),* endangered; California least tern *(Sterna antillarum browni),* endangered; western yellow-billed cuckoo(*Coccyzus americanus occidentalis* , endangered; willow flycatcher (*Empidonax traillii),* endangered; bank swallow (*Riparia* riparia), threatened; least bell's vireo (*Vireo bellii pusillus*), endangered; Belding's savannah sparrow (*Passerculus sandwichensis beldingi),* endangered; mohave tui chub (*Gila bicolor mohavensis),* endangered; desert pupfish (*Cyprinodon macularius),* endangered; unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni),* endangered; Stephen's kangaroo rat *(Dipodomys stephensi),* threatened; Peninsular bighorn sheep (*Ovis Canadensis cremnobates),* threatened; barefoot banded gecko (*Coleonyx switaki),* threatened; San Diego button-celery (*Eryngium aristulatum var parishii),* endangered; Encinitas baccharis (*Baccharis vanessae),* endangered; otay tarplant (*Deinandra conjugens),* endangered; Mojave tarplant (*Deinandra mohavensis),* endangered; Nevin's barberry (*Berberis nevinii),* endangered; Gambel's water cress (*Rorippa gambelii),* threatened; cuyamaca lake downingia (*Downingia concolor var brevior),* endangered; short-leaved dudleya (*Dudleya brevifolia),* endangered; Baja California birdbush (*Ornithostaphylos oppositifolia),* candidate; Peirson's milk-vetch (*Astragalus magdalenae var peirsonii),* endangered; coastal dunes milk-vetech (*Astragalus tener var titi),* endangered; San Diego thorn-mint (*Acanthomintha ilicifolia),* endangered; willowy monardella (*Monardella linoides ssp viminea),* endangered; San Diego mesa mint (*Pogogyne abramsii),* endangered; otay mesa mint (*Pogogyne nudiudcula),* endangered; Parish's meadowfoam (*Limnanthes gracilis ssp parishii),* endangered; Orcutt's spineflower (*Chorizanthe orcuttiana),* endangered; small-leaved rose (*Rosa minutifolia),* endangered; salt marsh bird's break (*Cordylanthus maritimus ssp maritimus),* endangered; Mexican flannelbush (*Fremontodendron mexicanum),*rare; dehesa nolina (*Nolina interrata),* endangered; thread-leaved brodiaea (*Brodiaea filifolia),* endangered; Dunn's mariposa lily (*Calochortus dunnii),* rare; California orcutt grass (*Orcuttia californica),* endangered.

No additional information on the occurrence of rare or endangered species or natural communities is known at this time. This does not mean that other State or Federally listed species may not be present within the areas of interest. An on site inspection by appropriate state and federal personnel may be necessary to verify the presence, absence or location of listed species, or natural communities if remedial action is recommended as part of the final ASR.

3.6 DEMOGRAPHICS

3.6.1 Center of Activity

Camp Lockett is located in San Diego County, California, approximately 15 miles southeast of the town of Pine Valley, California.

3.6.2 Population Density

City/County	Area (Sq. Mi.)	Population	Population Density (Per Sq. Mi.)
Pine Valley	7.1	1,297	182.7
San Diego County	4,204.5	2,498,016	594.1

3.6.3 Types of Businesses and Industry

Based on a total of 64,413 establishments in San Diego County, the breakdown of industry is as follows:

-Manufacturing	5.5%
-Construction	8.4%
-Services	36.8%
-Trade and Finance	26.4%
-Other	22.9%

Of the people in the county employed by businesses, about 23.2 percent are employed by trade and finance businesses. Also prominent are services businesses at about 34.0 percent, manufacturing at 12.5 percent, and construction at 6.6 percent. Foregoing percentages are at mid-March 1998.

3.6.4 Types of Housing

Housing in Pine Valley is composed of both single family and multi-family dwellings. The median value of the 473 specified owner-occupied housing units in Pine Valley is $192,100.

3.6.5 New Development in the Area

There is some new commercial and residential development in Pine Valley.

3.6.6 Typical Cross Section of the Population

The following is a cross section of the population in Pine Valley:

-White	98.5%
-Black	0.0%
-American Indian/Eskimo/Aleut	0.7%
-Asian/Pacific Islander	0.0%

-Other	0.8%

The percent of the total population that is of Hispanic origin is 4 percent. The part of the population that is under the age of 18 is 27.9 percent and the part over the age of 65 is 12.2 percent. The median age is 36.2 years.

4.0 HISTORICAL ORDNANCE USAGE

4.1 HISTORICAL SITE SUMMARY

Preface: Much of the information obtained on the history of Camp Lockett came from local sources of information in the vicinity of Campo, CA, and not from official military documentation and maps usually obtained from the National Archives and Records Administration. Therefore, information considered to be uncertain is qualified in the historical site summary by the use of words or phrases, such as "may" or "according to local sources".

4.1.1 General Site History

The necessities of mobilization and the transfer of the 11th Cavalry in November 1940 from the Presidio of Monterey to San Diego and Imperial counties, including Camp Seeley, led to the establishment of Camp Lockett at Campo, CA, which would be the last cavalry camp the Army would ever build. After reorganization in November of 1940, the 11th Cavalry consisted of two line battalions of three troops each, plus a Regimental HQ and Service Troop, a machine gun troop armed with .30 and .50 caliber guns, and a Special Weapons Troop consisting of 81 mm mortars and .50 caliber machine guns.

In the spring of 1941, the Army initially leased 702.438 acres on which to build Camp Lockett. During the summer and fall of 1941, the Army commenced construction to house troops then living under canvas, plus other facilities for the cantonment area of Camp Lockett. Training facilities had not been built at the time. On 10 December 1941, the 11th Cavalry occupied the camp and executed its wartime security mission of patrols along the U.S.-Mexican border for possible incursion by enemy forces, which took precedence over training.

Early in 1942, the Army acquired additional acres (approximately 7,000) through leases, permits, and the inclusion of land from the Department of the Interior. With the additional land, the 11th Cavalry, which had been trained elsewhere, established its own training facilities at Camp Lockett. Initially, the 11th Cavalry constructed its first training ranges on the southern end of the military reservation adjacent to County Road 767, which passed through Camp Lockett approximately 1.3 miles southward to the Mexican border. The County eventually abandoned Road 767 by 28 June 1943.

While the cantonment area continued to be improved with additional living facilities, the 11th Cavalry also established training courses for mounted pistol and saber training around its large and open mounted parade ground. The 11th Cavalry constructed an obstacle course for mounted soldiers on the western edge of the regiment's mounted parade ground. The mounted pistol course had a length of about a quarter of a mile and 10-12 half-size to full-size simulated enemy targets spaced 15-20 yards apart on both sides of the course and partially obscured by brush. The course had a slight hill mass in its line of fire. For dismounted drill the regiment used a flat area on the eastern edge of the cantonment area.

To meet other weapon training requirements, the 11th Cavalry established other target ranges extending from close proximity of the cantonment area to the Mexican border where the terrain provided a suitable barrier. Camp Lockett needed the additional target ranges for its weapon systems, both individual and crew-served, to train replacement personnel and for refresher training. Therefore, the 11th Cavalry posted an auxiliary 1000-inch range across a country road directly west of the post chapel for firing 22-caliber ammunition. When used, each troop in Camp Lockett conducted practice fire on the auxiliary range for two and a half days. In mid-1942 when elements of the 4th Cavalry Brigade arrived in Campo, Camp Lockett eventually abandoned the auxiliary range and built civilian housing on the site.

Later, Camp Lockett probably incorporated an additional six to eight pistol ranges for dismounted firing at various locations near the Mexican border. Camp Lockett also prepared three to four ranges by the border for use of sub-machine guns. Machine gun crews using the .30 caliber and .50-caliber machine gun may have also trained on the sub-caliber range with .22 caliber ammunition.

With the arrival of the 10th Cavalry, 4th Cavalry Brigade, and the newly activated 28th Cavalry in mid-1942, Camp Lockett expanded its existing cantonment and training facilities and established new training areas, including target ranges. According to local sources, in 1942 and 1943, the 10th Cavalry maintained a 1000-inch machine gun range about a mile or two west of Camp Lockett and north of Highway 94. The 10th Cavalry also fired mortars eastward into the rolling hills from a position just off County Road 767 at the mounted parade grounds. The 28th Cavalry required an expansion of the cantonment area at the military reservation with another dismounted drill field. On the eastern edge of the dismounted drill field, troops dug foxholes from which the regiment fired rifle grenades. The 10th and the 28th Cavalry each had its own gas chamber for chemical warfare training. Regarding ammunition storage, Camp Lockett had two magazines (steel igloo type) built on a sloping hill just east of the cantonment area, an ammunition warehouse, and a demolitions building. Like many other military posts, Camp Lockett also had "dumps" for disposal of an assortment of items.

Besides the training areas and target ranges described above, the cavalry units at Camp Lockett are believed to have also established a rifle range, hand grenade training area, infiltration course, mock village, and a .50 caliber machine gun and 37 mm anti-tank gun training area. In a place called Smith Canyon the cavalry, according to local sources, constructed both an infiltration course and mock village for training troops. In the adjacent canyon just east of Smith Canyon, troops conducted target practice with .50-caliber and 37 mm anti-tank guns, later replaced by 75 mm artillery.

In January 1944, elements of the 4th Cavalry Brigade departed Camp Lockett and the 115th Cavalry Reconnaissance Squadron (Mechanized) arrived to use Camp Lockett for training. According to local sources, the 115th equipped with the M3 Stuart Light Tanks and 75 mm guns conducted firing on the eastern edge of the military reservation from a firing position south of a trail, named Shockey Truck, just off of Highway 94, into an

impact area in the southeastern corner of the military reservation adjacent to the Mexican border.

By the end of February 1944, the Army terminated the training activities of the 115th at Camp Lockett, which then left the military reservation. During the early part of 1944, the Army sought proposals for the use of Camp Lockett. The Department of the Navy even displayed an interest in Camp Lockett. During this transition, storage facilities with ordnance, range communications, and at least a pistol and rifle range still existed at Camp Lockett. By 1 August 1944, the 9th Service Command took control of Camp Lockett, which officially became a medical recuperation facility, named the Mitchell Convalescent Hospital. On 1 April 1945, the Army also established a POW camp for Italian and German soldiers situated adjacent to the Mitchell Convalescent Hospital. Effective 30 April 1946, the Army declared the entire military reservation as surplus to the needs of the military. Between the end of World War II and 1950, while the War Department terminated all land permits and leases and returned federal property back to the Department of Interior, the War Assets Administration disposed of any remaining acres. Today, facilities and property at the former Camp Lockett are in use by private parties and the County of San Diego for housing, school, community, or commercial purposes. The U.S. Border Patrol has its Campo Station on the former cantonment area of Camp Lockett as well.

4.1.2 **Summary of OE Activities**

Information gathered on OE Activities came from interviews with former veterans of Camp Lockett and placed into narrative form by a local historian, James Hinds. Based on his discussions with former veterans of Camp Lockett, James Hinds annotated a topographical map with the types and locations of various target ranges at the Camp Lockett Military Reservation. Despite extensive research at the archives and record centers, the research team did not find an official military map of the Camp Lockett Military Reservation outlining target ranges.

However, research of available documentation and interviews attest to a number of target ranges at Camp Lockett and its military reservation. Information reflects various types of target ranges for weapons, including the pistol, rifle, sub-machine gun, machine gun (.50 caliber), grenade, rifle grenade, mortars (60 mm and/or 81 mm), and artillery (37mm and 75mm). Besides the 75 mm, the 115th Cavalry Reconnaissance Squadron (Mechanized) also had the M3 Stuart Light Tank. In addition to the above target ranges, Camp Lockett had an infiltration course and a mock village for training in an urban environment.

For storage of ammunition Camp Lockett had two magazines, steel-plated and igloo shaped. Associated facilities, such as an ordnance warehouse and demolition building, also existed at Camp Lockett. In addition, Camp Lockett had "dumps" now landfills.

4.1.3 Summary of CWM Activities

Camp Lockett had a property officer for chemical warfare items. Troops underwent chemical warfare training, which included the use of two gas chambers. As late as February 1946, after Army Ground Forces had left Camp Lockett and during the time period when the Surgeon General considered and finally established the Mitchell Convalescent Hospital, the military still had ammunition and chemical warfare materials, including grenades, on-hand at Camp Lockett. In February 1946, the Commanding Officer of the Mitchell Convalescent Hospital received instructions from the Office of the Commanding General of the 9th Service Command to prepare ammunition for shipment to Camp Haan, CA, and chemical warfare supplies, except grenades, to Fort Rosecrans, CA. Regarding the grenades, the instructions only noted, "the disposition of the grenades will be furnished in a separate letter" (Mochau 1946).

4.1.4 Certificate of Clearance

Despite extensive research, the research team did not find a Certificate of Decontamination for Camp Lockett and its military reservation.

4.2 Review of Historical Records

National Archives I – Washington, DC
Military/Civil Reference Branches
700 PENNSYLVANIA AVE., NW
Washington, DC 20408-0001
POC: Mary Frances Morrow
(202) 502-5400

The research team reviewed finding aids, consulted with archivists, and had a folder of real estate documentation on target ranges in California copied. However, the research team did not find pertinent information on the site.

National Archives II – College Park
Military Reference Branch
8601 Adelphi Road
College Park, MD 20740-6001
POC: Wilbert Mahoney
(301) 713-7250

The research team reviewed finding aids, consulted with archivists, and conducted research in the following records:

RG 77 Records of the U.S. Army Corps of Engineers
Entry: 391, Construction Completion Reports, 1917-1943
Box 173, Camp Livingston-Fort Logan
The research team found and copied extracts of documents

providing information regarding facilities and real estate on Camp Lockett.

Entry: Security Classified Subject Files, 1940-1945, Western Defense Command, Decimal 121.2 to San Francisco, Decimal 676.9

Boxes 140, 141, 142, 146, 219, 262, 263, 305, 306, 525, 531, 532, 648, 649, 786 to 792, 794, 859, and 869 to 872

The research team did not find pertinent information on the site.

Entry: General Correspondence with Districts, 1941-1945, Decimals 600.1-617

Box 305 to 307

The research team did not find pertinent information on the site.

Entry: General Correspondence, 1918-1945, Decimals 611.1-614

Box 775

The research team found and copied correspondence regarding Camp Lockett stating no target ranges exist or are under construction at the station as of 4 September 1941.

RG 92 Records of the Quartermaster General

Entry: Depots/Installations

Box 15

The research team found information on the DTC. However, the research team did not find information on the site.

RG 156 Records of the Office of the Chief of Ordnance

Entry: General Correspondence, 1936-1945, Decimals 293.7 to 680.42

Boxes 590 and 591

The research team did not find pertinent information on the site.

Entry: Progress Reports & Project Files, 1942-1943

Boxes L62 through L70

The research team did not find information pertinent to the focus of research on the site.

RG 160 Records of the HQ, Army Service Forces

Entry: Armed Service Forces, Correspondence Files, 1942-1946, 9th Service Cmd

Boxes 48 and 52.

Although Box 52 had information on Camp Seeley, the research team did not find pertinent information on the site.

Entry: 27, Command Installations Branch

Box 50

Folder: Camp Lockett

The research team received by mail from Archives II copies of documents most in reference to the Mitchell Convalescent Hospital, including its transition, establishment, and disposition of ordnance and chemical

warfare material left at Camp Lockett by Army Ground Forces.

RG 175 Records of the Chemical Warfare Service

Entry: Number 2, Index Briefs, 1918-October 1942
Boxes 60 through 80, 282, 376, 459, 498, 499, and 500
The research team found and copied information on a Chemical Warfare Property Officer on the post, gas masks for horses, and protective equipment for a field artillery battalion (75 mm) at Camp Lockett in Box 66.

Entry: Travel Reports, 1944-1948
Boxes 68, 69, 70, 71, 72, 73, 74, 75, 76, 184, and 185
The research team found information on Dugway Proving Ground. However, the research team did not find pertinent information on the site.

RG 270 Records of the War Assets Administration (WAA)

Entry: Subject File, 1946-1949, Status, Decimal 319.1 to Decimal 453.7
Boxes 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, and 64
The research team did not find pertinent information on the site.

Entry: Files of the Real Property Review Board, 1946-1949
Boxes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, and 19
The research team did not find pertinent information on the site.

Entry: Subject File of the Central Office of Real Property, 1946-1949
Boxes 10, 11, 12, 13, 15, 17, 18, 20, and 48.
The research team found and copied information on the Mitchell Convalescent Center in Box 48.

RG 338 Records of the U.S. Army Commands, 1942-

Entry: Files of the Fourth U.S. Army and Western Defense Command
Boxes 1, 2, 4, 7, 8, 9, 11, 12, 13, 14, 15, and 92
The research team found information on Dugway Proving Ground plans and projects. However, the research team did not find pertinent information on the site.

Entry: Files on XV Corps
Boxes 7819, 7820, 7821, 7822, 7823, 7824, 7825, 7826, 7827, 7840, 7841, 7842, 7843, 7844, 7845, 7846, 7847
The research team copied the history of the XV Corps, including its training at the DTC, from Box 7823. However, the research team did not find pertinent information on the site.

Entry: XV Corps, 1942-1946
Box 60
The research team did not find pertinent information on the site.

Entry: 9th Service Command (Declassified)
Boxes 1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 35, 36, and 38

The research team copied documentation in Box 10 regarding the 11th Cavalry movement to Campo, CA.

Entry: First Corps, Provost Marshall Section
Boxes 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, and 430
The research team did not find pertinent information on the site.

Entry: Records of U.S. Army Commands, 1942
Boxes 1, 16, 17, 18, 19, and 20
The research team did not find pertinent information on the site.

Entry: Adjutant General Section, 314.7-319.1
Folder: History of the Southern California Sector, Appendices, #7, 8 Dec 1941-2 Sep 1945
The research team copied information on Camp Lockett under the Western Defense Command and a medical unit stationed at Camp Lockett.

RG 389 Records of the Office of the Provost Marshall General

Entry: Administrative Division, Project Technical Service, 1941-1945, Camps
Box 359
The research team did not find pertinent information on the site.

Entry: Subject Correspondence File, 1942-1946, Prisoner of War Operations
The research team did not find pertinent information on the site.

Entry: Subject File, 1942-1946, POW Info Bureau, Reporting Branch, Camps Inactivated and Camps Inspected to Inspection and Field Reports
Boxes 2513 and 2667
The research team did not find pertinent information on the site.

RG 407 Records of the Adjutant General's Office, 1917-

Entry: Army AG Decimal File, 1946-1948, Projects-Geographic
Box 1713
The research team did not find pertinent information on the site.

Entry: Army AG Project Decimal File, 1949-1950, Projects-Geographic
Box 1069
The research team did not find pertinent information on the site.

National Archives II – College Park
Civil Reference Branch
8601 Adelphi Road
College Park, MD 20740-6001
POCs: Wayne DeCesar and Joseph Schwarz
(301) 713-6780

The research team in consultation with archivists reviewed finding aids and did not find an indication of pertinent information on the site.

National Archives II – College Park
Cartographic branch
8601 Adelphi Road
College Park, MD 20740-6001
POC: Henry Gwiazda
(301) 713-7069

The research team reviewed finding aids, consulted with archivists, and reviewed map collections of the DTC in RG 77. However, the research team did not find pertinent information on the site.

National Archives—Still Pictures Branch
8601 Adelphi Road
College Park, MD 20740
POC: Reference Desk
(301) 713-6795

The research team reviewed listings of the Branch's collections and did not find an indication of pertinent information on the site.

National Archives--Library
8601 Adelphi Road
College Park, MD 20740
POC: Jeff Hartley
(301) 713-6780

The research team reviewed catalogs of the Library's holdings and in consultation with the Librarian did not find an indication for secondary sources on the site.

Washington National Records Center
4205 Suitland Road
Suitland, MD 20746-8001
POC: Reference Desk
(301) 457-7000

The research team reviewed accession listings and did not find an indication of files on the site.

National Personnel Records Center
Military Personnel Records
9700 Page Avenue
St Louis, MO 63132-5100
POC: John Daly
(314) 538-4085

The research team reviewed accession listings, consulted with archivists, and conducted research in the following records:

Accession 342-57H-3001, Location 08172351, Boxes 7, 8, 11, and 14 of 23 Boxes.

Accession 338-63D-3096, Location 06331265, Box 15 of 16 Boxes.

Accession 342-44A-6003, Location 064825F1, Boxes 19 to 23, 39 and 40 of 53 Boxes.

Accession 342-49H-6037, Location 05374265, Boxes 36 to 38 of 46 Boxes.

Accession 342-50F-4003, Location 06034471, Box 20 of 31 Boxes.

Accession 342-50A-5020, Location 08322121, Box 8 of 13 Boxes.

Accession 342-50A-4041, Location 06215253, Box 5 of 9 Boxes.

Accession 342-50F-6017, Location 044019F1, Box 23 of 35 Boxes.

Accession 342-52B-3007, Location 04130173, Box 9.

Accession 342-53-7035, Location V2-10-02-7-4, Box 45 of 47 Boxes.

The research team did not find pertinent information on the site in the above records.

Chemical Biological Defense Command Historical Office
Aberdeen Proving Ground
Edgewood, MD 21010
POCs: Dr. Jeffrey Smart and Kathy Ciolfi
(410) 671-4430

The research team reviewed the office files, including chemical warfare service bulletins and newsletters, and did not find pertinent information on the site.

CENTER OF MILITARY HISTORY
CMH Library
Ft. McNair
103 Third Avenue
Washington, DC 20319-5058
POCs: Bob Wright/John McGrath
(202) 685-3098/4114/4008

The research team reviewed the holdings of the above repository and copied historical data cards on Camp Lockett, Mitchell Convalescent Hospital, and the POW Camp.

OFFICE OF THE CHIEF HISTORIAN
U.S. Army Corps of Engineers
7701 Telegraph Road
Alexandria, VA
POCs: Dr. Walker and Dr. Gordon
(703) 428-6558/7553

The research team reviewed finding aids and did not find any indication of pertinent information on the site.

NARA-Pacific Region
Archives/FRC
24000 Avilla Road
Laguna Niguel, CA 92677
POCs: Lisa Gezelter and Bill Doty
(949) 360-2641/(949) 425-4935

The research team reviewed finding aids, accession listings with respective SF 135, consulted with archivists and record managers, and researched the following records:

RG 77 Records of the U.S. Army Corps of Engineers
- Entry: Reports of Operations, 1940-1945
  Boxes 1 to 8
  The research team did not find pertinent information on the site.
- Entry: General Administration Files, 1935-1950, Decimal 600.95
  Boxes 14, 15, and 16
  The research team did not find pertinent information on the site.
- Entry: Military Land Acquisition Files, 1849-1994, Camps
  Boxes 57 and 64
  The research team found a notice by the Army Service Forces as to the stand-by and then surplus status of Camp Lockett together with real estate documentation, a building list for the cantonment area of Camp Lockett, and a narrative on the Mitchell Convalescent Hospital.
- Entry: Military Specifications Files, 1964, Training Exercises
  Box 212
  The research team found information on Training Operation "Desert Strike". However, the research team did not find pertinent information on the site.
- Entry: Military Audit Files, 1849-1996, Target Locations
  Box 35
  The research team found information on El Centro rocket targets. However, the research team did not find pertinent information on the site.

Entry: Site Audit/DERP Files, 1849-1994
Box 120
The research team found information on the DTC, Camp Seeley and El Centro training facilities and targets. However, the research team did not find pertinent information on the site.

Entry: Files on Military Projects, California, Series for General Correspondence, 1940-1986
Boxes 1 to 10
The research team did not find pertinent information on the site.

RG 270 Records of the War Assets Administration (WAA)
Entry: Real Property Disposal Files, California
Boxes 31, 32, 41 and 42
The research team found information on the DTC & CAMA. However, the research team did not find information on the site.

U.S. Army Corps of Engineers—Los Angeles District
911 Wilshire Blvd
ATTN: CESPL-ED, CESPL-RE-PP, and CESPL-PM-M
Los Angeles, CA 90017
POCs: Gil Gonzales, Richard Nagle, Armando Moneu, and Debra Castens
(213) 452-3719/3137/3138/3990

The research team copied all documentation in the INPR folder for Camp Lockett, including maps.

NAVFAC, San Diego
1220 Pacific Highway
San Diego, CA 92132
POCs: Tom Phelps, Cadastral; John Rullman, Realty; Terry Martin, Environmental; and Jim Dohna, Activity Liaison Officer
(619) 532-1169/1160/4207/3054

The research team reviewed primarily maps, related historical documentation, and real estate files. The research team retrieved information on property ownership at the former Camp Lockett.

Tax Assessor's Office
San Diego County
1600 Pacific Highway, Room 103
San Diego, California 92101
POCs: Connie Tomlinson and Evelyn Faelnar
(619) 236-3771

The research team collected information on property owners and their respective property designation by parcel number on the land of the former Camp Lockett and Military Reservation, as well as associated real estate maps.

Department of General Services
Real Estate Services Division
5555 Overland Ave.
Building 2, Room 110
San Diego, CA 92123-1294
POC: William A. Ring
(858) 694-2294

The research team copied a design drawing of the steel-plated magazines (igloo shape) constructed at Camp Lockett, as well as a map (same copy as previously collected) and vicinity maps of the cantonment area of Camp Lockett. The research team also obtained a diskette containing digital information of real estate in San Diego County in connection with Camp Lockett.

Imperial County Historical Society
Pioneer Museum
373 East Aten Road
Imperial, CA 92251
POC: Lynn Housouer
(760) 356-4746

The research team reviewed finding aids for the repository, conducted research, and copied a newspaper article on Camp Lockett from the San Diego Union, a regimental history of the 11th U.S. Cavalry, and a pictorial history of Camp Lockett.

Mountain Empire Historical Society
P.O. Box 394
Campo, CA 92006
POC: Roger Challberg
(619) 478-5768

The research team reviewed office files of the historical society and its museum and copied a map of the cantonment area for Camp Lockett, numerous issues of the Camp Lockett News prepared by the Mountain Empire Historical Society that provided information on the construction, units stationed, training areas, target ranges, and other historical data on Camp Lockett.

U.S. Border Patrol Office
Campo Station
P.O. Box 68
Campo, CA 91906
POC: Senior Patrol Agent Darrel V. Walraven
(619) 478-5444

The research team received orientation information on the remains of the cantonment area, training areas, and target ranges of the former Camp Lockett and military reservation.

National Archives (Archives II), Cartographic & Architectural Branch
8601 Adelphi Road
College Park, MD 20740
(301) 713-7040
POC: Jennifer Nelson or Henry Gwzado

The research team consulted *Aerial Photographs in the National Archives-Special List 25*, dated 1990, for San Diego County. Using the indexes, the team identified and acquired the following imagery:

07 Sep 1943	1:20,000	AXN 2B 185-189
08 Sep 1943	1:20,000	AXN 3B 78-80, 92-96
29 Sep 1943	1:20,000	AXN 4B 62-66

The research team also consulted the coverage overlays for the site in Record Group 373 (Records of the U.S. Defense Intelligence Agency) but did not identify any imagery for the site.

U.S. Department of Agriculture
Aerial Photography Field Office
2222 W 2300 S
Salt Lake City, Utah 84119-2020
POC: Sharron McGiff
801-975-3503

The research team reviewed photo-mosaics of available imagery for the county in which the camp is located and identified and acquired the following imagery:

04 Jun 1996	1:40,000	NAPP 9553 11-14
27 Sep 1996	1:40,000	NAPP 9572 55-57

U.S. Geological Survey
EROS Data Center
Sioux Falls, South Dakota 57198
POC: Sandy Spanton
605-594-6151 ext. 6962

The research team reviewed photo-mosaics of available imagery using the Camp Lockett's geographic coordinates and identified and acquired the following imagery for the site:

	09 Sep 1954	**1:37,000**	**COP 34-39**
04 Oct 1954	1:37,000	COPS 9-15	

4.3 Summary of Interviews

Interviews were conducted by telephone and in person, both prior to and during the site inspection. The primary purpose of these interviews was to make initial contact with individuals knowledgeable of the site and to coordinate follow-up visits during the site inspection phase of this ASR's preparation.

For the record, the research team contacted many other individuals, besides contacts at the repositories listed in Paragraph 4.2 above, in an extensive effort to obtain pertinent information on Camp Lockett.

A list of individuals interviewed and a synopsis of the pertinent information they provided is placed in **Appendix H**. Any pertinent information derived from these interviews is covered within the body of this ASR.

4.4 Air Photo Interpretation And Map Analysis

4.4.1 General Area Map Analysis

Camp Lockett covers a portion of San Diego County in extreme southern California, approximately forty miles east of the city of San Diego. The site borders a segment of the U.S.- Mexico international border. The eastern half of the site is rather mountainous while the western half and northern portion lies in relatively flat Campo Valley. Campo Indian Reservation borders the site on the east and part of the north, near Cameron Corners. State Route 94 passes through the site in an east-west direction, along with the San Diego and Arizona Eastern Railroad tracks.

4.4.2 Site Specific Map and Drawing Analysis

This archive search located a site-specific layout plan for Camp Lockett. However, the accuracy of this layout is unknown. The features identified on the layout plan depict the

recollections of former cavalrymen who were interviewed in the late 1980's and early 1990's.

Analysis of these maps located the following OE related structures on site: rifle range, infiltration course, 75mm firing positions, .50-caliber & 37mm training area, 75mm impact area, pistol ranges, mock village, mortar & hand grenade training area, sub-machine gun range, mounted pistol and saber course, auxiliary 1,000-inch range, and drill field rifle grenades. The paragraphs below discuss the relevant information retrieved from the reviewed map.

Camp Lockett Military Reservation
1992 *Adapted from Camp Lockett, Campo California* - by James Hinds, 1992.

The camp boundary and features overlay a background map which consists of the relevant section numbers and township and range for the site. The OE related features are listed around the site and point to indistinguishable features within the site boundary. This map is the basis for Plate 2.

4.4.3 Air Photo Interpretation

Government and contractor personnel conducted an aerial photography database search. The aerial photography retrieved covered Camp Lockett during and following military use. The imagery acquired is in photographic print format and provides complete stereo coverage of the site. The analyst performed the interpretation using the following source materials:

Photo Date	Approx. Scale	Source	Frame ID #s
07 Sep 1943	1:20,000	Archives II	AXN 2B 185-189
08 Sep 1943	1:20,000	Archives II	AXN 3B 78-80, 92-96
29 Sep 1943	1:20,000	Archives II	AXN 4B 62-66
09 Sep 1954	1:37,000	EROS	COP 34-39
04 Oct 1954	1:37,000	EROS	COP 9-15
04 Jun 1996	1:40,000	ASCS	NAPP 9553 11-14
27 Sep 1996	1:40,000	ASCS	NAPP 9572 55-57

The analyst delineated imagery containing important areas on hard copy plots and digitized it using Computer-Aided Drafting and Design (CADD) software. The digitized features overlay scanned aerial photography, resulting in the final plots (see Plates 2, & 3). The analysis involved using stereo viewing of photography that allows more accurate identifications than monoscopic interpretations. Resolution and scale of the imagery limited the identification of features discussed in this study. The analyst used the word "probable" when discussing features for which identification is reasonably accurate. The analyst used the term "possible" when identification was not positive, but the object/area matched known features/locations on other sources. Analysis of the aerial photographs referenced the site maps discussed in sections 4.4.1 and 4.4.2 above. The **bolded**

numbers in parentheses referenced in the sub-paragraphs below refer to the feature descriptions on the annotated aerial photography plates. *Note: Feature description numbers are not necessarily transferable between imagery plates of different years.* The sub-paragraphs below describe the relevant features identified on the imagery:

4.4.3.1 1943 Imagery (Plate 5) – The 1943 imagery shows Camp Lockett during military use. The rifle range (**1**) is visible across a canyon in the central portion of the site. It appears to be under construction at this time with numerous roads and trails crossing through the range. The target berm is under construction and will end up being approximately 600 feet wide and the firing lines will be at approximately 500 feet, 700 feet, and 900 feet. At least three small buildings are visible around the rifle range. The pistol and the mortar and grenade range (**8**) are small and not fully formed at this time though the two areas are graded. North of these ranges, a small road leads east to the hills off a main north-south road. Four small buildings (**19**) are visible at the loop at the end of the road. This is a possible location of the ammunition bunkers. Further north, a rectangular feature approximately 100 feet by 200 feet is a possible pistol range (**7**). This range also appears to be under construction at this time. In the northeast corner of the site is a possible location of the .50-caliber and 37mm training. This area (4) has an irregular fence line and trail network around a stand of trees. The light tone on the photos indicates heavy usage of this area. At the western end of the site along Campo Creek is a possible location of the 1,000-inch range. This area (**14**) is approximately 100 feet by 300 feet, divided into two equal sections, with a berm at the northern end towards the creek.

4.4.3.2 1954 Imagery (Plate 6) - The 1954 imagery shows the condition of the site after the military use ended and vegetation covers most of the ranges. The rifle range (**1**), target pit, and berm are still visible across a canyon in the central portion of the site. The fully formed pistol range and mortar and grenade range (**8**) also remain visible south of the cantonment area. The berms at these ranges are 500 feet and 700 feet wide. The possible 1,000-inch range (**14**), pistol range (**7**), and .50-caliber/37mm training area (4) are all overgrown and not in use. The possible ammunition bunkers (**19**) are not discernible on the photos though the access road is still visible. Numerous buildings at the cantonment area remain visible on the photos.

4.4.3.3 1996 Imagery - Aerial imagery reviewed from later dates revealed no additional information of possible ordnance or military related functions.

5.0 REAL ESTATE

5.1 CONFIRMED DOD OWNERSHIP

The INPR indicates that the site was acquired by lease and purchased from private interests and permitted use from DOI beginning in 1942. Disposal of the site was completed in 1949.

5.2 POTENTIAL DOD OWNERSHIP

Prior to establishing Camp Lockett, the Army had maintained a presence in and around the site since a border incident in 1875.

5.3 SIGNIFICANT PAST OWNERSHIP OTHER THAN DOD

There is nothing in the records to indicate that there were any historically significant past ownership, other than DoD, with respect to possible OE contamination.

5.4 PRESENT OWNERSHIP

The majority of the former cantonment area is owned by the City of San Diego. BLM owns significant acreage on the western portions of the former installation with the remainder being privately owned by numerous individuals.

6.0 SITE INSPECTION

The site inspection was conducted over two and one half days (27-29 April 2001), by the following personnel of the St. Louis District:

Dennis W. Gilmore	Project Manager
Randy Fraser	Safety Specialist
Fred Miller	Historian

The team was accompanied on the site inspection by Senior Patrol Agent Darrel Walraven of the U.S. Border Patrol. Note that there is a high amount of illegal aliens and drug traffic throughout the area. Rattlesnakes were a frequent hazard.

The former Camp Lockett site was originally used for protection of the US-Mexican Border, then for the training of troops during World War II. It is located in Campo, San Diego County, California, about 40 miles east of the City of San Diego. Subsequent to its use for training, portions of the site was occupied by the Mitchell Convalescent Hospital and a prisoner-of-war camp. The site consisted of 7,111.748 acres. The southern border of the site is the US-Mexican Border.

6.1 OE Areas of Interest

The INPR notes the presence of a "target pit" in the vicinity of Northwest ¼ of the Northeast ¼ of Section 14, township 18 South, Range 5 East. The site survey team reported finding .30-caliber bullets at this location. Also provided is the suspected location of the "75mm firing positions". The location given is the North ½ of Section 12, Township 18 South, Range 5 East, (Assessor's Parcel 655-141-24). The owner of the parcel, Mr. Mike Dick, reportedly stated that he has found on his property .30 and .50 caliber bullets, and shrapnel from "some kind of mortar round or rocket estimated to be 80mm in size".

A 1992 drawing, based on interviews of former cavalrymen, indicates the presence of the following ranges:

1)	Sec. 10, T18S, R5E	Rifle Grenades
2)	Sec. 11, T18S, R5E*	Rifle Range
3)	Sec. 12, T18S, R5E	.50-caliber and 37mm Training Area 75mm Firing Positions
4)	Sec. 15, T18S, R5E	Auxiliary 1000-Inch Range Pistol Range

5)	Sec 22, T18S, R5E*	Mounted Pistol Course Mortar and Hand Grenade Training Area 6-8 Pistol Ranges 3-4 Sub-machine Gun Ranges
6)	Sec. 18 & 20, T18S, R6E	75mm Impact Area

(*) denotes areas of apparent activity as view in aerial imagery

Additionally, the site contained two ammunition storage magazines and two gas chambers.

Analysis of aerial imagery from 1943 (during the period of usage), and 1954 (after use) were reviewed (Plate Nos. 5 and 6). Of all the purported ranges or training areas noted in Mr. Hinds drawing (rev. 1992), five areas of possible OE related activity are seen. The first is definitely a rifle range (1) straddling Sections 11 and 14 of T18S, R5E. This is in the general area depicted in the 1992 drawing. A partially cleared area is noted in Section 12, which was reportedly used for .50-caliber and 37mm training (4). Bullets and mortar fragments have been recovered in this vicinity. Two other areas of activity identified from the photos are located in the northwest quadrant of Section 22. The 1992 drawing indicates that a hand-grenade and mortar range (8) were located in this vicinity. A feature (7) east of the cantonment area is noted as possibly a rifle range. There appears to be a pistol range (14) located in Section 16, west of the cantonment area. A group of four structures are visible in the hills immediately east of the camp. Although the location and number of structures is different from the layout map, it is possible that these were ammunition storage bunkers. There were no other visual indications or evidence of any other activities ever having occurred on the site.

6.2 Survey of AOI's

The inspection team first attempted to survey the area of the **two ordnance storage magazines**. A 1941 construction drawing shows that the structures were portable steel, igloo type magazines (Standard Drawings 652-354). They were situated within horseshoe shaped berms (5 feet high) with a second berm across the open end of the horseshoe. No evidence of the remnants was observed. This site is covered with dense brush and populated with rattlesnakes.

On the morning of April 28th, the team, escorted by a border patrol agent (Darrel Walraven) and a maintenance supervisor (Mike Dick) proceeded to the site of the rifle range depicted on the 1992 drawing and seen in the aerial photos. Mr. Dike remembered playing here as a kid. The **rifle range** (listed as #1 above), located in La Gloria Canyon was confirmed by the presence of the target pit and spent .30-caliber bullets (see Appendix C-4.).

The target pit (N 32° 36' 55.2", W 116° 26' 38.3") consisted of a concrete wall about 10 feet high and 300 yards long with wooden mechanisms for raising and lowering the

targets. On the north end of the range wall is the remnants of what is believed to have been a storage building.

The team then proceeded to the area identified in the drawing as a **Drill Field/Rifle Grenades** (#18). The presence of two parallel berms, approximately 5 feet high, and spaced about 200 yards apart was noted. This area is primarily pasture with a marshy area between the two berms and on the western side of the pasture. It is used for the grazing of cattle and horses. The two berms appear to have been situated such that they divert the flow of Campo Creek. Our inspection of this area did not reveal any evidence of OE usage or remains.

The day concluded with the inspection of the area along the border identified as a **Mounted Pistol Course and 6-8 Pistol Ranges**. No evidence of either of these ranges was found in the locations depicted.

On the morning of April 29th, we began by surveying the reported **75mm Impact Area** (#5). The team covered approximately a one square mile area in and around the vicinity depicted on the 1992 drawing. No indications of this area having ever been used for OE related activities were found. This is an area of very high foot and vehicular traffic, yet not a single scrap of metal was found other than a few tin cans within yards of the border.

We attempted to survey the **property of Mr. Mike Dick** (which was identified in the INPR). Mr. Dick appeared extremely reluctant and denied us access to inspect his property. We were showed several OE items that have been found on the property to include a shard of metal believed to be some type of mortar fragment. Of interest was what appeared from the distance to be a berm, possibly a backstop, on the southwest portion of the property. Based on the OE items recovered from this property it is likely the area depicted as the **.50-caliber and 37mm training area** (#4).

The team proceeded to the sites reported to have been the **mock village and the infiltration course**. No indication or evidence of OE was found.

The 1992 drawing depicts an area that it identifies as having been used as a **pistol range and mortar and hand grenades** (#8). The inspection of the area confirms the stated use by the presence of OE (vicinity N 32° 35' 43.3 and W 116° 27' 6.3"). Items found included a rifle grenade nose cap, a grenade spoon, several spent bullets of various calibers. Several pipes and wooden box frames that are assumed to have been used to hold targets was observed (see photos at Appendix I, Nos. 8-10).

A berm is situated such that it appears the range was oriented to support firing in a westerly direction. The site is overgrown with sage-brush and chaparral. Portions of the site appeared to have been paved with asphalt for a hardstand. Building debris was also noted in the area.

7.0 EVALUATION OF ORDNANCE PRESENCE

Based on the extensive archive searches performed, the interviews of the owners and individuals familiar with the site, the potential for OE exists at identified location within the former Camp Lockett.

Rifle range - located in La Gloria Canyon (N 32° 36' 55.2", W 116° 26' 38.3"), the target area butts up against the hillside, which was used as a backstop for the small arms (Photo 6). The hillside is littered with expended small arms projectiles (.30 caliber). Numerous expended shotgun shells (not FUDS related) were also present.

Private property belonging to Mr. Dick and others – Interviews with property owner indicate the presence of expended small arms, and fragments from mortars (possible). During the site inspection the team was shown several small arms projectiles and a fragment, from what appears to be either a high explosive mortar or artillery projectiles (see Photo 11). The current landowner found these items. He further stated that he and some friends had used metal detectors to look for artifacts and ammunition debris. The team was not given permission to further investigate the property (East ½ of Section 12, Township 18 South, Range 5 East).

Pistol Range, Mortar and Hand Grenade (Range 5)
The inspection of the area (vicinity N 32° 35' 43.3 and W 116° 27' 6.3") confirms the presence of OE (see photos 8-10). Items found included a nose cap from a rifle grenade, a grenade spoon (probably from a smoke grenade), and several spent bullets of various calibers. Fragments for clay pigeons were also found along the berm, however it is likely this activity is not associated with the FUDS.

Drill Field/Rifle Grenade Range- No evidence of OE was found during the site inspection. No known reports of OE being found on this site.

Mounted Pistol Course and 6-8 Pistol Ranges- No evidence of these ranges were found during the site inspection. No known reports of OE being found on this site.

3-**4 Sub-machine Gun Ranges** - No evidence of this range was found during the site inspection. No known reports of OE being found on this site.

Auxiliary 1000-Inch Range - No evidence of this range was found during the site inspection. No known reports of OE being found on this site.

Rifle Grenade Range - No evidence of this range were found during the site inspection. No known reports of OE being found on this site.

75mm Impact area (#6) – No evidence of OE was found during the site inspection. No known reports of OE being found within this area.

75mm Firing Positions - No evidence of this range was found during the site inspection. No known reports of OE being found on this site.

Mock Village and infiltration course. No evidence of OE was found during the site inspection. No known reports of OE being found within this area.

No certificate of decontamination or clearance was found concerning Camp Lockett.

8.0 TECHNICAL DATA OF EVALUATION OF ORDNANCE PRESENCE

8.1 POTENTIAL OE AND CWM ITEMS

The archive search identified the following ordnance-related items associated with Camp Lockett: Small arms, calibers .30, .45, and .50; Mortars (60mm and/or 81mm); Rifle Grenades; Smoke Grenades; Artillery (37mm and 75mm).

The archive search uncovered no evidence of the use of chemical warfare materials at Camp Lockett. Activities at this site did not include the storage, disposal or use of CWM (toxics). Documents do indicate the presence of chemical (tearing agent) grenades.

8.2 DESCRIPTION OF CONVENTIONAL ORDNANCE

The following is a list of ordnance items associated with the former CampLockett. Appendix C-1 contains the technical details of typical examples of OE identified with site.

Small Arms, calibers .30, .45, and .50.
Projectile, 37mm, AP, M74
Projectile, 37mm, HE, Mk II
Projectile, 37mm, TP, Mk63 Mod 1
Mortar, 60mm, HE, M49A2
Mortar, 60 mm, Practice, M50A2
Mortar, 60 mm, Training, M69
Mortar, 81mm, HE, M43A1
Mortar, 81 mm, Practice
Mortar, 81 mm, Training, M68
Projectile, 75mm, Gun, HE, M48
Projectile, 75mm, Howitzer, M48
Projectile, 75mm, Shrapnel, Mk I
Projectile, 75mm, AP, M72
Rifle Grenade, AT, M9A1
Rifle Grenade, Practice, M11A2
Hand Grenade, Smoke, HC, AN-M8
Hand Grenade, Smoke, M18
Hand Grenade, Smoke, WP, M15
Hand Grenade, Irritant, CN-DM, M6
Hand Grenade, Tear, CN, M7 & M7A1

8.3 DESCRIPTION OF CWM

The archive search report did not uncover evidence that any chemical warfare materials remain on the former Camp Lockett.

9.0 EVALUATION OF OTHER SITE INFORMATION

No other environmental concerns relevant to DOD were discovered during the research or site visit.

APPENDIX A

REFERENCES

REFERENCES

Hinds, James
1985 Historical Narrative, entitled *"The Camp Lockett Military Reservation, Campo, California, 1941-1946"*, a revision dated 1985, authored by James W. Hinds; Mountain Empire Historical Society, Campo, CA.
Appendix G-1

Hinds, James
1990 Article, entitled *"Training Facilities Formed An Integral Part of Camp Lockett Military Reservation"*, originally appeared in the November-December 1990 Issue of the Camp Lockett News, reprinted in Volume 9, Number 1, Fall 1994 Issue, with an additional reprint in Volume II, 1996, from Narrative entitled *"Military Presence in the San Diego Backcountry"*; Camp Lockett News, Campo, CA; Mountain Empire Historical Society, Campo, CA.
Appendix G-2

Mochau, M.F., COL, AGD
1946 Military Memorandum with Supplemental Instructions, from the Office of The Commanding General, 9th Service Command, to the Commanding Officer of the Mitchell Convalescent Hospital, signed by Colonel M.F. Mochau, Adjutant General, by Command of Major General Shedd, Commanding General of the 9th Service Command, dated 16 February 1946, Subject: Disposition of Mitchell Convalescent Hospital, Camp Lockett, CA; RG 160, Entry 27, Box 50, Folder: Camp Lockett; Archives II, College Park, MD.
Appendix E-1

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1976 *Southern California.* K/H Geology Field Guide Series, California Institute of Technology, Kendall/Hunt Publishing Company, Dubuque, IA.

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U.S. Census reports as listed below:

-1990 Census of Population and Housing, Pine Valley, California
-1994 County and City Data Book, Area and Population, San Diego County, California
-1998 County Business Patterns, San Diego County, California

APPENDIX B

GLOSSARY AND ACRONYMS

APPENDIX B

GLOSSARY AND ACRONYMS

AAF*	Army Air Field
AA	Anti-Aircraft
ACGIH	American Conference of Governmental Industrial Hygienist
AEC	Army Environmental Center
AFB	Air Force Base
AP	Armor Piercing
APDS	Armor Piercing Discarding Sabot
APERS	Anti-Personnel
AP-T	Armor Piercing-Tracer
ASR	Archive Search Report
AT	Anti-Tank
BD	Base Detonating
BD/DR	Building Demolition/Debris Removal
BLM	Bureau of Land Management
BRAC	Base Realignment and Closure
CADD	Computer-Aided Drafting and Design
cal	Caliber
CBDCOM	Chemical and Biological Defense Command
CE	Corps of Engineers
CEHNC	Corps of Engineers, Huntsville Engineering and Support Center
CEMVS	Corps of Engineers, Mississippi Valley-St. Louis District
CEMVK	Corps of Engineers, Mississippi Valley-Vicksburg District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
COE	Chief of Engineers
ctg	Cartridge
CWM	Chemical Warfare Material
CWS*	Chemical Warfare Service
CX	Center of Expertise
DA	Department of the Army
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DOI	Department of Interior
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
EM	Engineer Manual
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
FM	Field Manual
FS	Feasibility Study
FUDS	Formerly Used Defense Sites

GIS	Geographic Information System
GPS	Global Positioning Satellite
GSA	General Services Administration
HE	High Explosive
HEAT	High Explosive Anti-Tank
HEI	High Explosive Incendiary
HEP	High Explosive Plastic
HTRW	Hazardous Toxic and Radioactive Waste
HTW	Hazardous and Toxic Waste
IAS	Initial Assessment Study
IATCB	Interdepartmental Air Traffic Control Board
INPR	Inventory Project Report
IRP	Installation Restoration Program
LD	Lyme Disease
MCX	Mandatory Center of Expertise
MT	Mechanical Time
MTSQ	Mechanical Time Super Quick
NARA	National Archives and Records Administration
NAVSEA	Naval Sea Systems Command
NAS*	Naval Air Station
NCP	National Contingency Plan
n.d.	No Date
NEW	Net Explosive Weight
NGVD	National Geographic Vertical Datum
NIMA	National Imagery and Mapping Agency
NMAS	National Map Accuracy Standards
NPL	National Priorities List
NOAA	National Oceanic and Atmospheric Administration
NOFA	No Further Action
NPRC	National Personnel Records Center
NRC	National Records Center
NWS	National Weather Service
OCE	Office Chief of Engineers
OE	Ordnance and Explosives
OP	Ordnance Pamphlet
OSHA	Occupational Safety and Health Administration
PA	Preliminary Assessment
PD	Point Detonating
PE	Professional Engineer
PIBD	Point Initiating, Base Detonating
PM	Project Manager
PPE	Personal Protective Equipment
QASAS	Quality Assurance Specialist, Ammunition Surveillance
RAC	Risk Assessment Code
RG	Record Group
RI	Remedial Investigation

RI/FS	Remedial Investigation/Feasibility Study
SARA	Superfund Amendments and Reauthorization Act
SOP	Standing Operating Procedures
SPB*	Surplus Property Board
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
TCRA	Time Critical Removal Action
TEU	United States Army Technical Escort Unit
TM	Technical Manual
TNT	Trinitrotoluene
TP	Target Practice
USACE	U.S. Army Corps of Engineers
USADACS	U.S. Army Defense Ammunition Center and School
USAFHRA	U.S. Air Force Historical Research Agency
USATCES	U.S. Army Technical Center for Explosive Safety
USATHMA	U.S. Army Toxic and Hazardous Materials Agency
USC	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UXO	Unexploded Ordnance
WAA*	War Assets Administration
WNRC	Washington National Records Center

* designates an historic acronym

APPENDIX C

TEXT/MANUALS

TEXT/MANUALS

C-1	Typical Cartridge (Sectional)
C-2	Shell, 75MM Howitzer, HE, M48
C-3	Shell, 75MM, Gun HE, M48
C-4	Caliber .30 Bullets (Sectional)
C-5	7.62MM Cartridges
C-6	5.56MM Cartridges
C-7	Caliber .30 Cartridges
C-8	Caliber .30 Carbine an Caliber .45 Cartridges
C-9	Caliber .50 Cartridges
C-10	20MM Cartridges
C-11	Typical 30MM Projectile
C-12	Caliber .22 Cartridges
C-13	Caliber .38 Cartridges
C-14	12 Gage Shotgun Shells/ Linked 7.62 MM Cartridges
C-15	Links for Caliber .30 and Caliber .50 Ammunition
C-16	Cartridges, Link Belt, Cartons, Bandoleers and Ammunition Box
C-17	Projectile, 37MM, Armor Piercing, M74 with Tracer
C-18	Shell, 37MM, HE, Fixed, MK II
C-19	Shell, 37MM, TP, M63 MOD 1
C-20	Mortar, 60MM, HE, M49A2, Practice, M50A2
C-21	Mortar, 60MM, Practice, M50A2

TEXT/MANUALS

C-22	Mortar, 60MM, Training, M69
C-23	Mortar, 81MM, HE and Practice, M43A1
C-24	Mortar, 81MM, Training, M68
C-25	Projectile, 75MM, Shrapnel, MK I
C-26	Shell, 75MM, Armor Piercing, M72
C-27	Rifle Grenade, Anti-Tank, M9A1
C-28	Rifle Grenade, Practice, M11A2
C-29	Grenade, Hand, Smoke, HC, AN-M8
C-30	Grenade, Hand, Smoke, M18, With Fuze, M201, M201A1
C-31	Grenade, Hand, Smoke, WP, M15
C-32	Grenade, Hand, Irritant, CN-DM, M6
C-33	Grenade, Hand, Tear, CN, M7 and M7A1

Appendix C-1

Typical Cartridge (Sectional)

SMALL-ARMS AMMUNITION

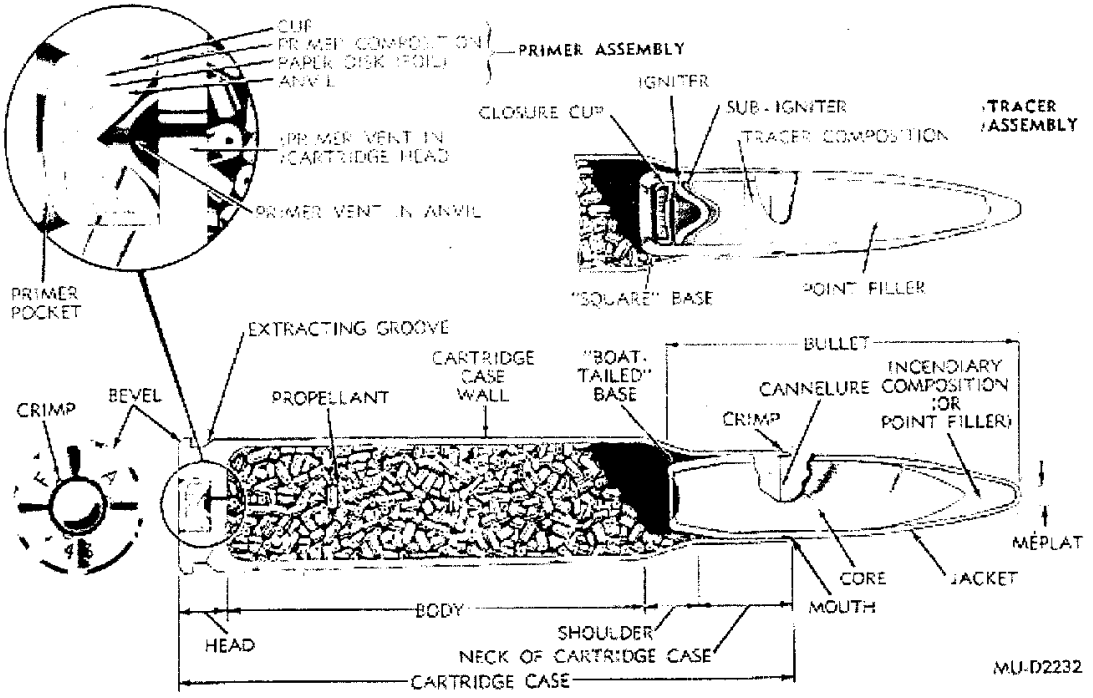


Figure 1. Typical cartridge (sectional)

General. Small-arms ammunition, as used herein, describes a cartridge or families of cartridges intended for use in various types of hand-held or mounted weapons through 30 millimeter. Within a caliber designation, these weapons may include one or more of the following: rifles (except recoilless), carbines, pistols, revolvers, machineguns and shotguns. For purposes of this publication, small-arms ammunition may be grouped as cartridges intended primarily for combat or training purposes (API, HEI, tracer or ball); for training purposes only (blank or dummy); or for special purposes (rifle grenade or spotter-tracer). Refer to TM 9-1306-200 for more detailed information on small-arms ammunition.

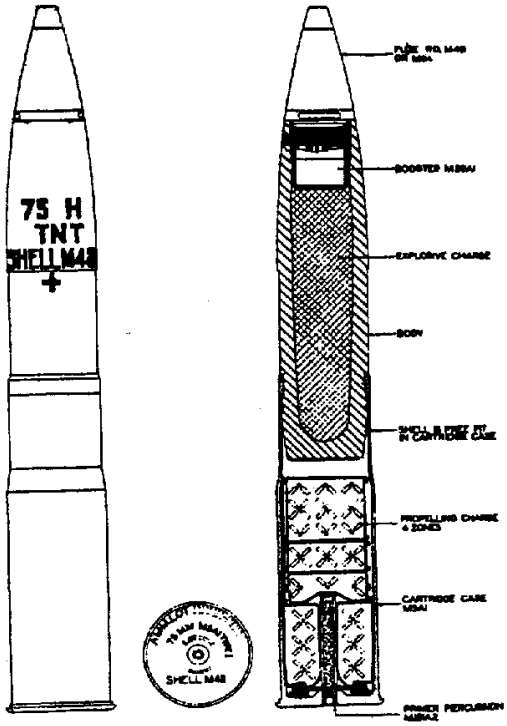
Cartridges. In general, a small-arms cartridge is identified as an assembly of a cartridge case, primer, a quantity of propellant within the cartridge case, and a bullet or projectile. Blank and rifle grenade cartridges are sealed with paper closure disks in lieu of bullets. Dummy cartridges are composed of a cartridge case and a bullet. Some dummy cartridges contain inert granular materials to simulate the weight and balance of live cartridges. A typical cartridge and the terminology of its components are shown in figure 1.

Case. Although steel, aluminum, zinc and plastic materials have been used experimentally, brass, a composition of 70 percent copper and 30 percent zinc, is the most commonly used material for cartridge cases. Steel, as well as brass, is an approved material for caliber .45 cartridge cases. Brass, paper and plastic are used for 12 gage shotshell bodies. Aluminum is used for military-type .410 gage shotshell bodies. Configurations of cartridges and bullets are illustrated in figures 2 through 11.

Appendix C-2

Shell, 75MM Howitzer, HE, M48

SHELL, 75mm HOWITZER, HE, M48



Shell, Semifixed, H.E., M48

General. The complete round with the exception of cartridge case, primer, propelling charge, and markings is similar to the gun Round M48.

Description. This projectile is streamlined with a 9° tapered or boat-tailed base and a 7.5-caliber radius of ogive. The projectile is made of forged steel; it has a rotating band of gilding metal, a fringing groove; and a steel base cover spot welded to its base. It is also provided with a single groove, between the fringing grove and the boat-tail, for stab crimping of the cartridge case. The booster and fuze assemble directly to the nose of the shell, the booster being tightened in place by a set screw, and the fuze by staking into notches cut in the rim of the nose. The standard bursting charge consists of 1.49 pounds of TNT. The projectile is painted lusterless olive drab and is stenciled in yellow with the designation of weapon (75H), the designation of filler (TNT), and the complete round designation (Shell M48).

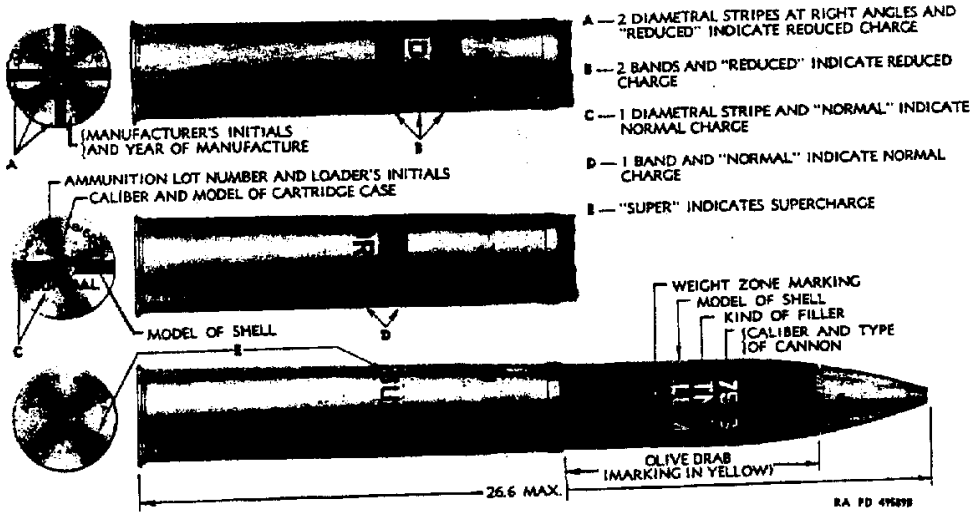
Filler ..... TNT
Filler weight ..... 1.49 pounds
Cartridge Case M5, M5A1B1
Propellant ..... FNH (15.55 oz. max)
Primer M1B1A2
Fuze M48, M48A1, M54
Painting and markings ..... Olive drab w/ yellow markings

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-3

Shell, 75MM, Gun HE, M48

SHELL, 75mm, GUN HE, M48



SHELL, H.E., M48, for 75-mm Guns

Description This projectile is streamlined with a 9° tapered or boat-tailed base and a 7.5-caliber radius of ogive. The projectile is made of forged steel; it has a rotating band of gilding metal, a fringing groove; and a steel base cover spot welded to its base. It is also provided with a single groove, between the fringing grove and the boat-tail, for stab crimping of the cartridge case. The booster and fuze assemble directly to the nose of the shell, the booster being tightened in place by a set screw, and the fuze by staking into notches cut in the rim of the nose. The standard bursting charge consists of 1.49 pounds of TNT. The actual weights, for uniformity of ballistics, are classified into weight zones which are indicated by yellow crosses (+++) stenciled below the bourrelet of the shell. The propelling charge M18 and M18B1 provides three charges; normal, super, and reduced. The mean weight of the complete round are: for the supercharge, 19.3 pounds; for the normal charge, 18.5 pounds; and for the reduced charge, 18.0 pounds. The projectile is painted lusterless olive drab and is stenciled in yellow with the designation of weapon (75G), the designation of filler (TNT), and the complete round designation (Shell M48).

Over-all Length (Max)..... 26.6 inch
Diameter (body)..... 2.925 inch
Total Weight..... (+) 18.0 pound
(++) 18.5 pound
(+++) 19.3
Filler..... TNT
Filler weight..... 1.49 pounds
Cartridge Case..... M18, M18B1
Propellant..... FNH powder
Primer..... M22A3, M22-series and M31
Fuze..... M48A2, M54, M51A4, M21A4
Painting and markings..... Olive drab w/ yellow markings

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-4

Caliber .30 Bullets (Sectional)

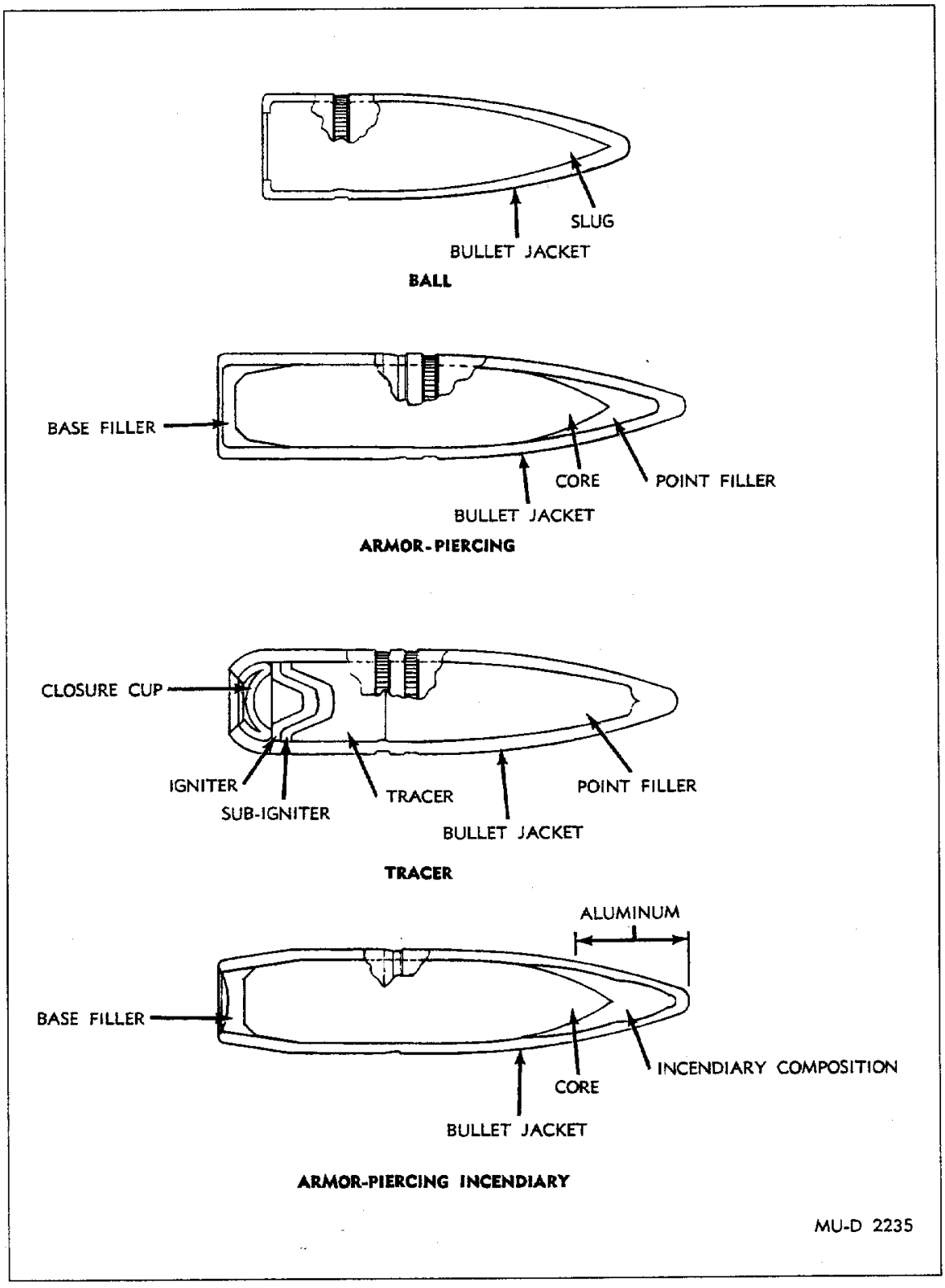


Figure 4. Caliber .30 bullets (sectional)

Appendix C-5

7.62 MM Cartridges

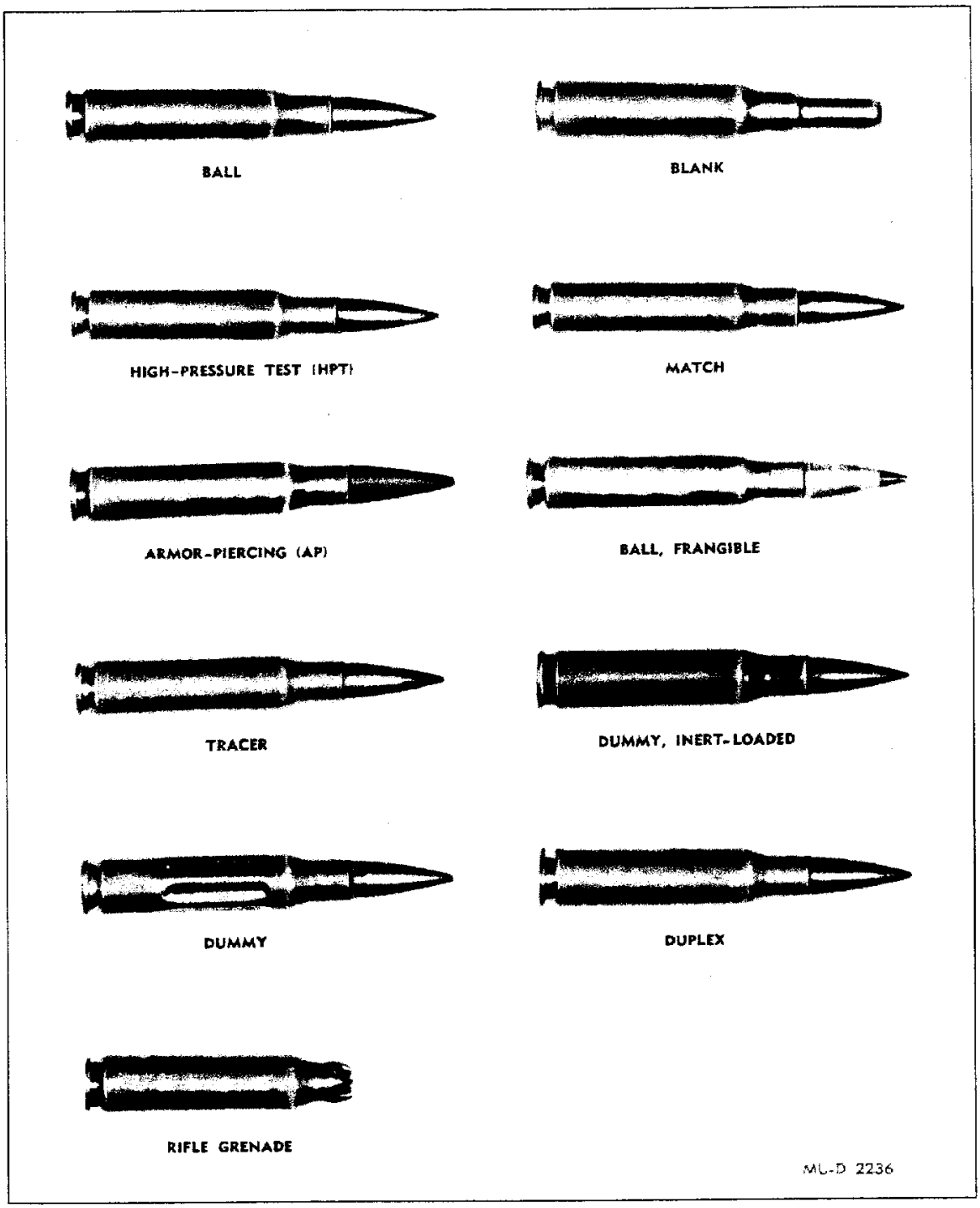


Figure 5. 7.62mm cartridges

Appendix C-6

5.56MM Cartridges

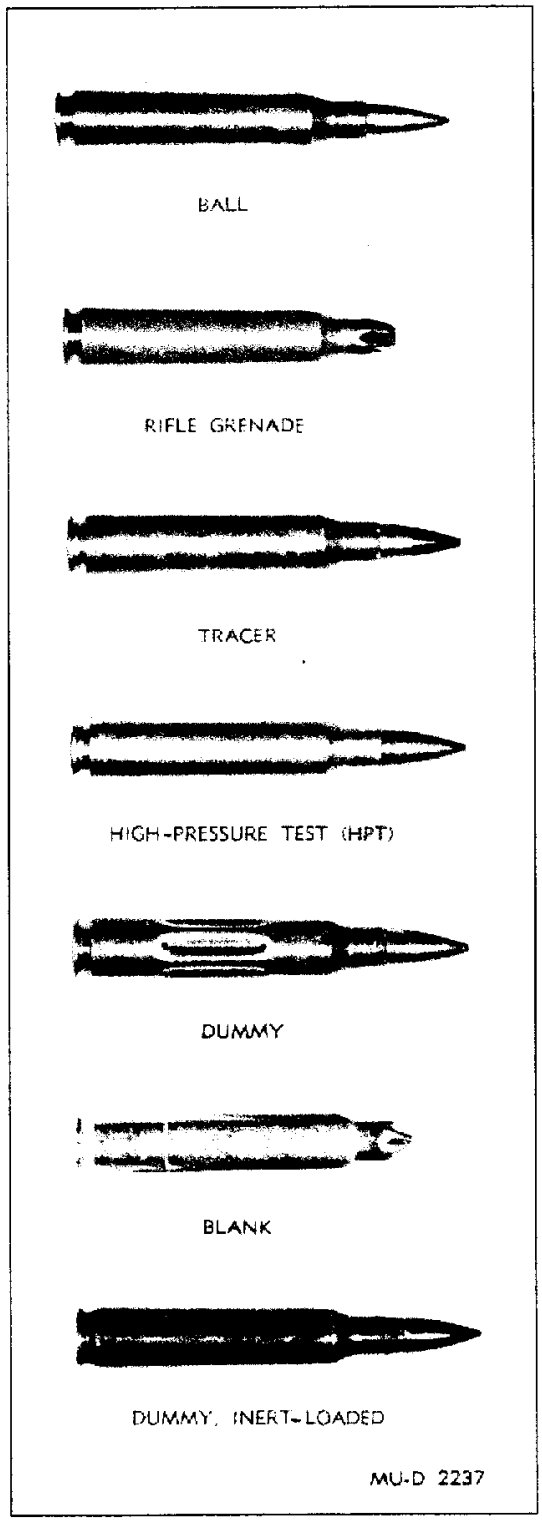


Figure 6. 5.56mm cartridges

Propellant. Cartridges are loaded with varying weights of propellant. This is to impart sufficient velocity (within safe pressures) to the projectile to obtain the required ballistic performance. These propellants are either of the single-base (nitrocellulose) or double-base (nitrocellulose and nitroglycerine) type. The propellant grain configuration may be cylindrical with a single, lengthwise perforation, spheroid (ball) or flake. Most propellants are coated with a deterrent (to assist in controlling the rate of combustion) and with a final coating of graphite (to facilitate flow of propellant and eliminate static electricity in loading cartridges).

Primer. Small-arms cartridges contain either a percussion or electric primer. The percussion primer consists of a brass or gilding metal cup that contains a pellet of sensitive explosive material secured by a paper disk and a brass anvil. The electric primer consists of an electrode button in contact with the priming composition, a primer cup assembly and insulator. A blow from the firing pin of the weapon on the center of the percussion primer cup base compresses the primer composition between the cup and the anvil. This causes the composition to explode. The function of the electric primer is accomplished by a firing pin with electrical potential, which contacts the electrode button. This allows current to flow through the energy-sensitive priming composition to the grounded primer cup and cartridge case, exploding the priming composition. Holes or vents in the anvil or closure cup allow the flame to pass through the primer vent in the cartridge case and ignite the propellant. Rimfire ammunition, such as the caliber .22 cartridge, does not contain a primer assembly. Instead, the primer composition is spun into the rim of the cartridge case and the propellant is in intimate contact with the composition. On firing, the firing pin strikes the rim of the cartridge case, compressing the primer composition and initiating its explosion.

Appendix C-7

Caliber .30 Cartridges

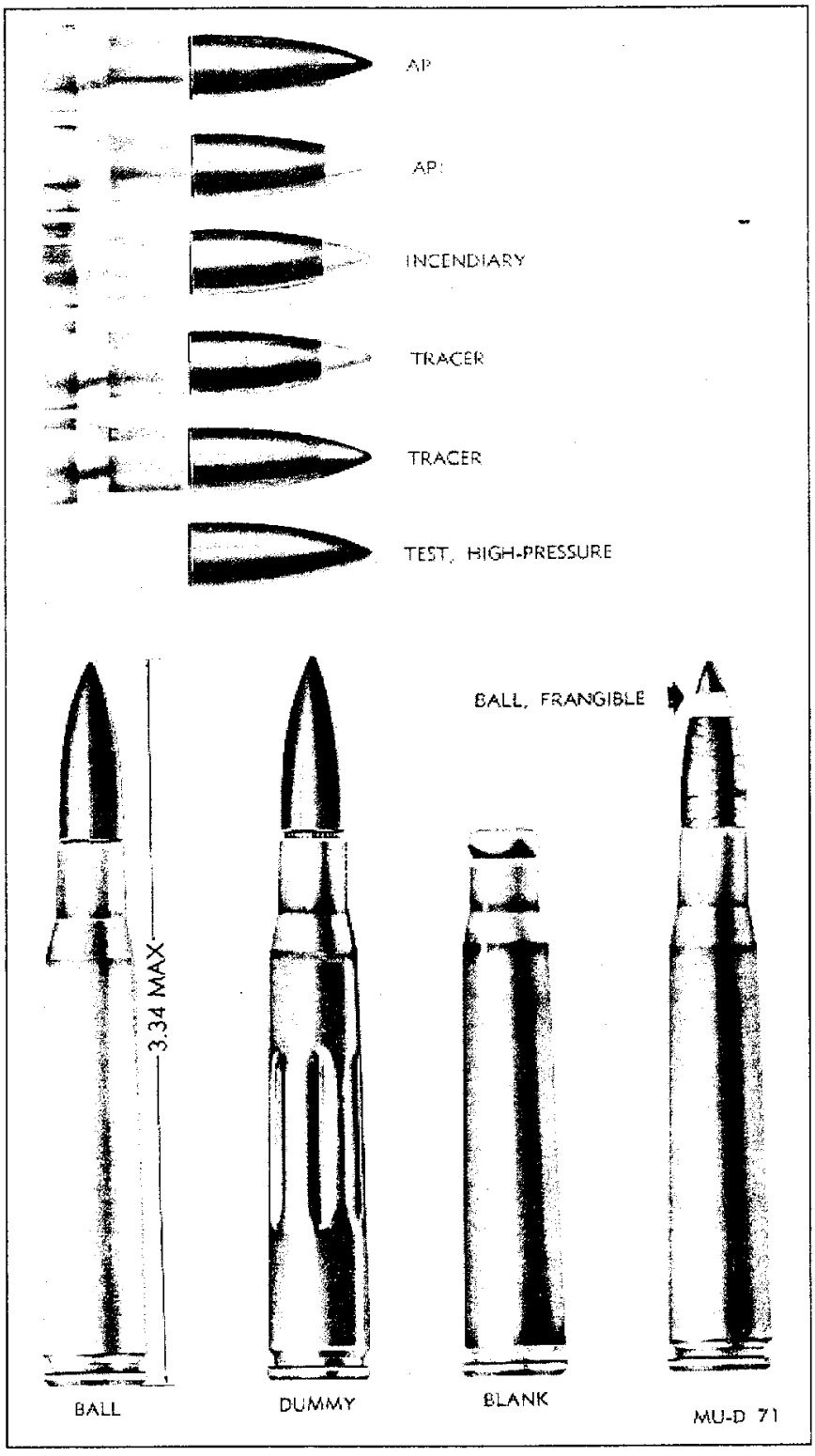


Figure 7. Caliber .30 cartridges

Appendix C-8

Caliber .30 Carbine an Caliber .45 Cartridges

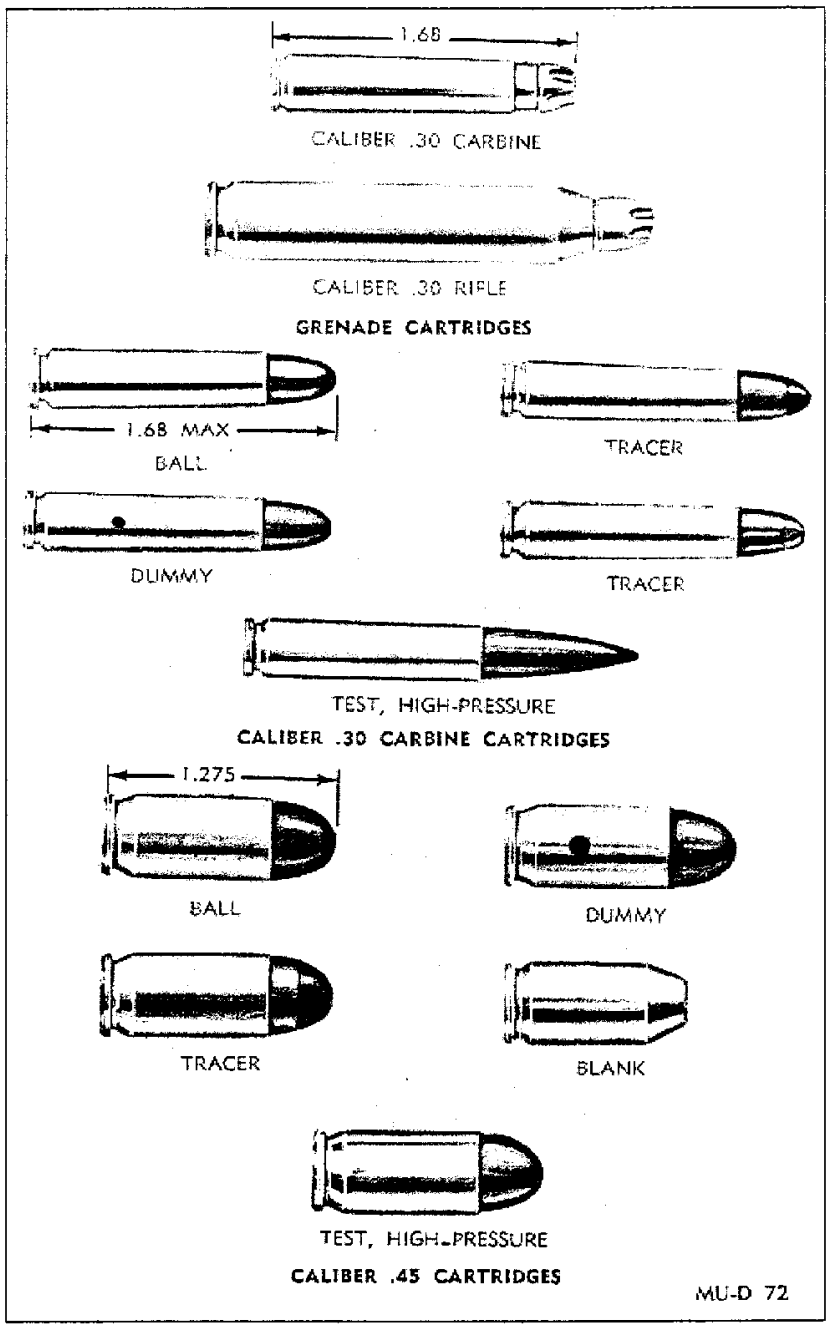


Figure 8. Caliber .30 carbine and caliber .45 cartridges

Bullet. With few exceptions, bullets through caliber .50 are assemblies of a jacket and a lead or steel core. They may contain other components or chemicals which provide the terminal ballistic characteristics of the bullet type. The bullet jacket may be either gliding metal, gliding-metal clad steel, or copper plated steel. Caliber .30 and 7.62mm frangible bullets are molded of powdered lead and a friable plastic which pulverizes into dust upon impact with the target. The pellets used in the shotgun shells are spheres of lead alloys varying from 0.08 inch to 0.33 inch in diameter.

Appendix C-9

Caliber .50 Cartridges

Figure 9. Caliber .50 cartridges

Appendix C-10

20MM Cartridges

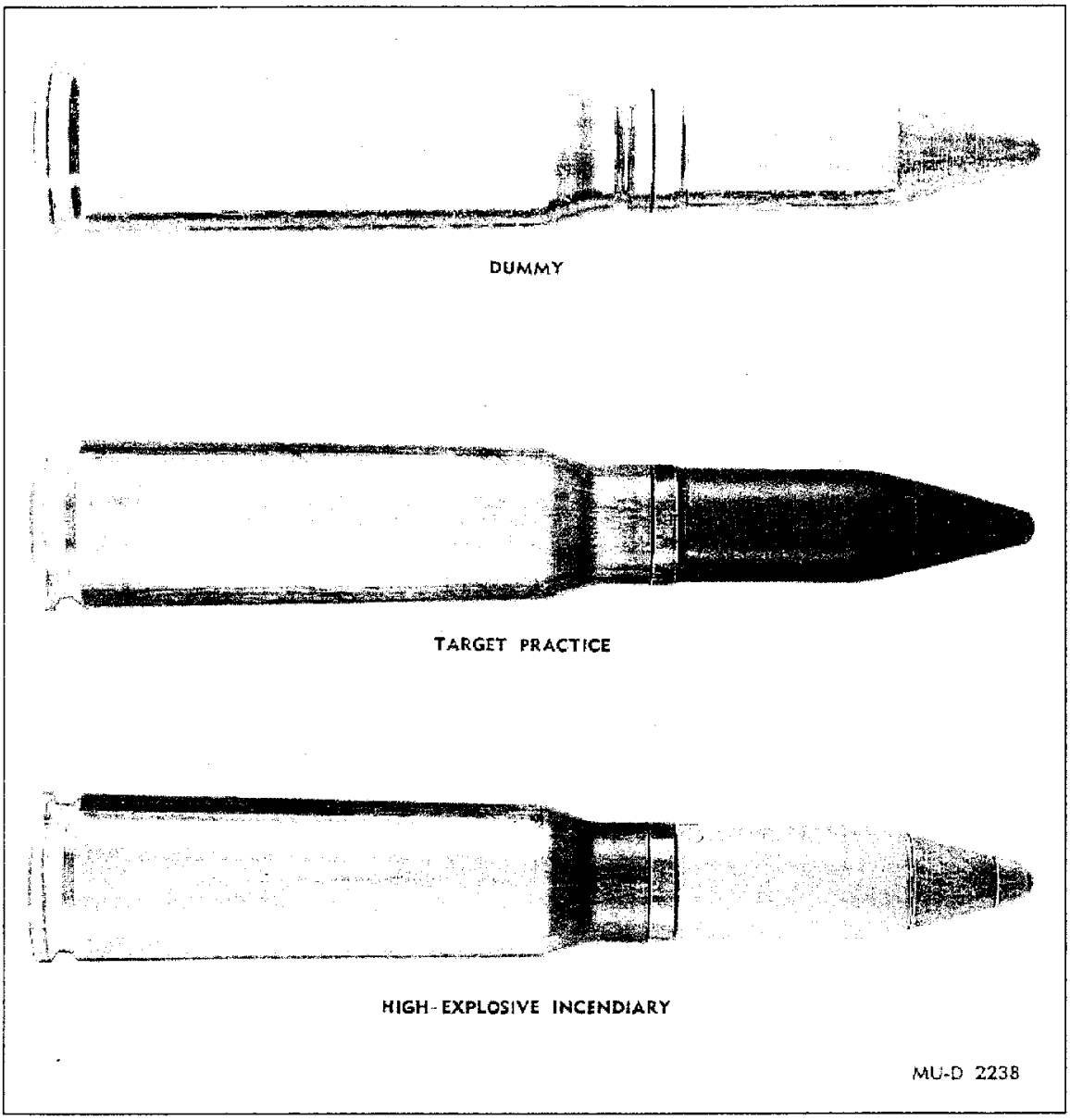


Figure 10. 20mm cartridges

Ball Cartridge. The ball cartridge is intended for use in rifles, carbines, pistols, revolvers and/or machineguns against personnel and unarmored targets. The bullet, as designed for general purpose combat and training requirements, normally consists of a metal jacket and a lead slug. Caliber .50 ball bullet and 7.62-mm, Ball M59 bullet contain soft steel cores.

Tracer Cartridge. By means of a trail of flame and smoke, the tracer cartridge is intended to permit visible observation of the bullet's in-flight path or trajectory and the point of impact. It is used primarily to observe the line of fire. It may also be used to pinpoint enemy targets to ignite flammable materials and for signaling purposes. The tracer element consists of a compressed, flammable, pyrotechnic composition in the base of the bullet. This composition is ignited by the propellant when the cartridge is fired. In flight, the bullet emits a bright flame which is visible to the gunner. Trace burnout occurs at a range between 400 and 1,600 yards, depending upon the caliber of ammunition.

Appendix C-11

Typical 30MM Projectile

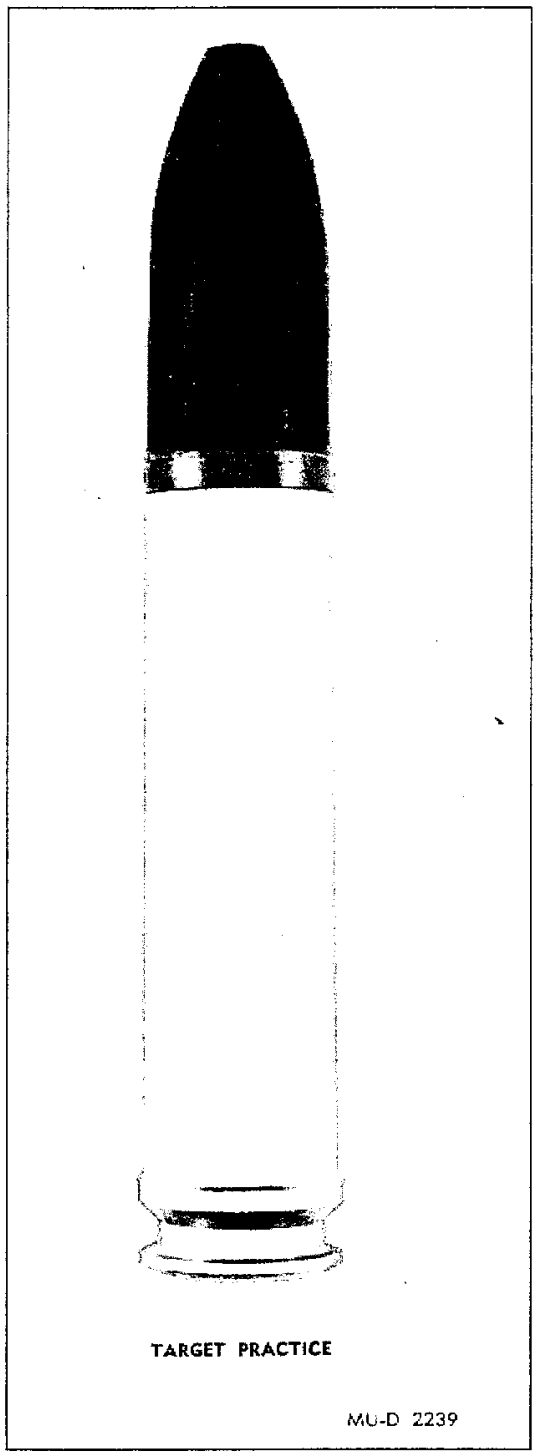


Figure 11. Typical 30mm projectile

Match Cartridge. The match cartridge is used in National and International Match Shooting competitions. The bullet consists of a gliding-metal jacket over a lead slug. The cartridges are identified on the head face with the designation NM (National Match) or Match.

Armor-Piercing Cartridges. The armor-piercing cartridge is intended for use in machine-guns or rifles against personnel and light armored and unarmored targets, concrete shelters, and similar bullet-resisting targets. The bullet consists of a metal jacket and a hardened steel-alloy core. In addition, it may have a base filler and/or a point filler of lead.

Armor-Piercing-Incendiary Cartridge. The armor-piercing-incendiary cartridge is used in rifles or machineguns as a single combination cartridge in lieu of separate armor-piercing and incendiary cartridges. The bullet is similar to the armor-piercing bullet, except that the point filler is incendiary mixture instead of lead. Upon impact with the target, the incendiary mixture burst into flame and ignites flammable material.

Armor-Piercing-Incendiary Tracer Cartridge. The bullet of the armor-piercing-incendiary-tracer cartridge combines the features of the armor-piercing, incendiary, and tracer bullets and may be used to replace those cartridges. The bullet consists of a hard steel core with compressed pyrotechnic mixture in the cavity in the base of the core. The core is covered by a gilding-metal jacket with incendiary mixture between the core point and jacket. This cartridge is for use in caliber .50 weapons only.

Duplex Cartridge. The duplex cartridge contains two special ball type bullets in tandem. The front bullet is positioned partially in the case neck, similarly to a standard ball bullet. The rear bullet, positioned completely within the case, is held in position by a compressed propellant charge. The base of the rear bullet is angled so that in flight, it follows a path slightly dispersed from that of the front bullet.

Appendix C-12

Caliber .22 Cartridges

Spotter-Tracer Cartridge. The spotter-tracer cartridge is intended for use in coaxially mounted caliber .50 spotting rifles. The bullet trajectory closely approximates that of 106mm projectiles. Thus, this cartridge serves as a fire control device to verify weapon sight settings before firing 106mm weapons. The bullet contains an impact detonator and incendiary composition which identify the point of impact by flash and smoke.

Blank Cartridge. The blank cartridge is distinguished by absence of a bullet. It is used for simulated fire, in training maneuvers, and for saluting purposes. It is fired in rifles and machineguns equipped with blank firing attachments.

Grenade Cartridge. The grenade cartridge is used to propel rifle grenades and ground signals from launchers attached to rifles or carbines. All rifle grenade cartridges are distinguished by the rose petal (rosette crimp) closure of the case mouth.

Frangible Cartridge. The caliber .30 frangible cartridge, designed for aerial target training purposes, is also used in rifles and machineguns for target shooting. Caliber .30 and 7.62mm frangible cartridges are used in tank machineguns, firing single shot, for training in tank gunnery. At its normal velocity, the bullet, which is composed of powdered lead and friable plastic, will completely disintegrate upon striking a 3/16-inch aluminum alloy plate at 100 yards from the muzzle of the gun. These cartridges are not to be used on any but well ventilated indoor ranges to preclude buildup of toxic bullet dust. Inhalation of bullet dust may be injurious to health.

Incendiary Cartridge. The incendiary cartridge was designed for aircraft and ground weapon use to ignite combustible targets (e.g., vehicular and aircraft fuel tanks). The bullet contains a compressed incendiary mixture which ignites upon impact with the target. The incendiary cartridge has been superseded by the API and APIT cartridges because of their improved terminal ballistic effects.

Target-Practice Cartridge. The 20mm target-practice cartridge is the conventional steel shell with steel nose plug. It is used primarily for training purposes. This is not a combat cartridge; hence, no fuze is used in the assembly.

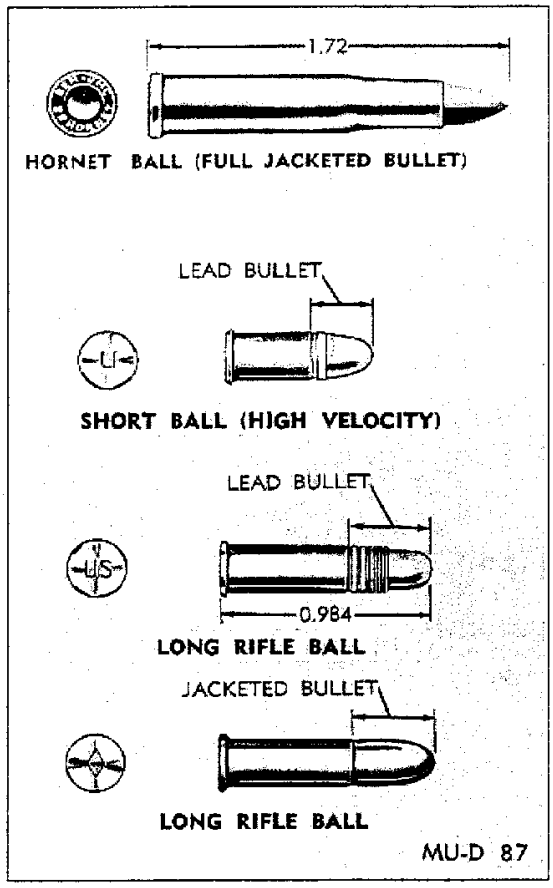


Figure 12. Caliber .22 cartridges

Special Purpose Cartridge

Cartridges of various calibers. (figures. 11 through 14), which consist of different types of projectiles and bullets, are used for training and special purposes. They include the following:

(1) Caliber .22 long rifle and caliber .38 and .45 wad-cutter cartridge for target shooting.

Appendix C-13

Caliber .38 Cartridges

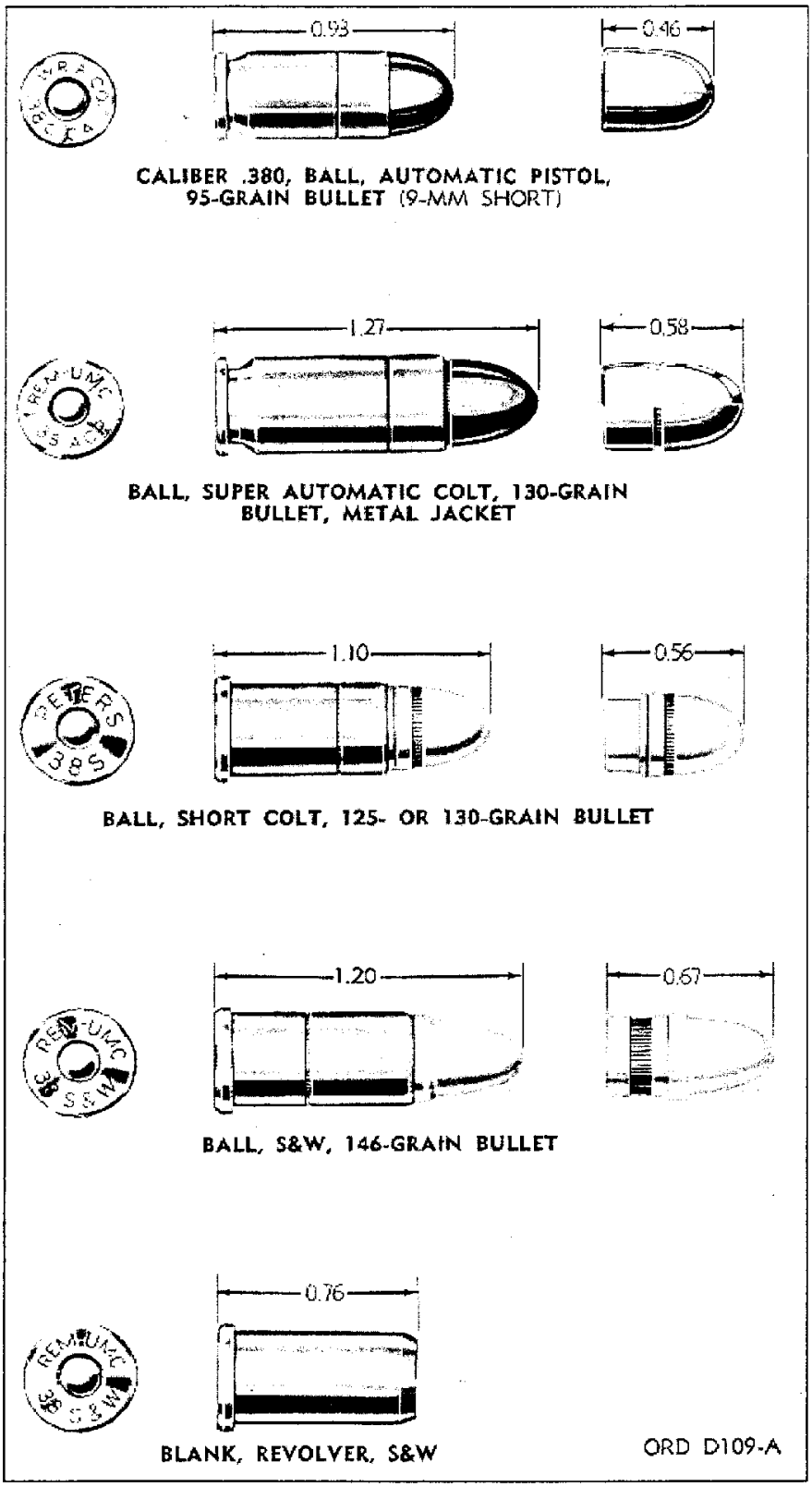


Figure 13. Caliber .38 cartridges

Appendix C-14

12 Gage Shotgun Shells/ Linked 7.62 MM Cartridges

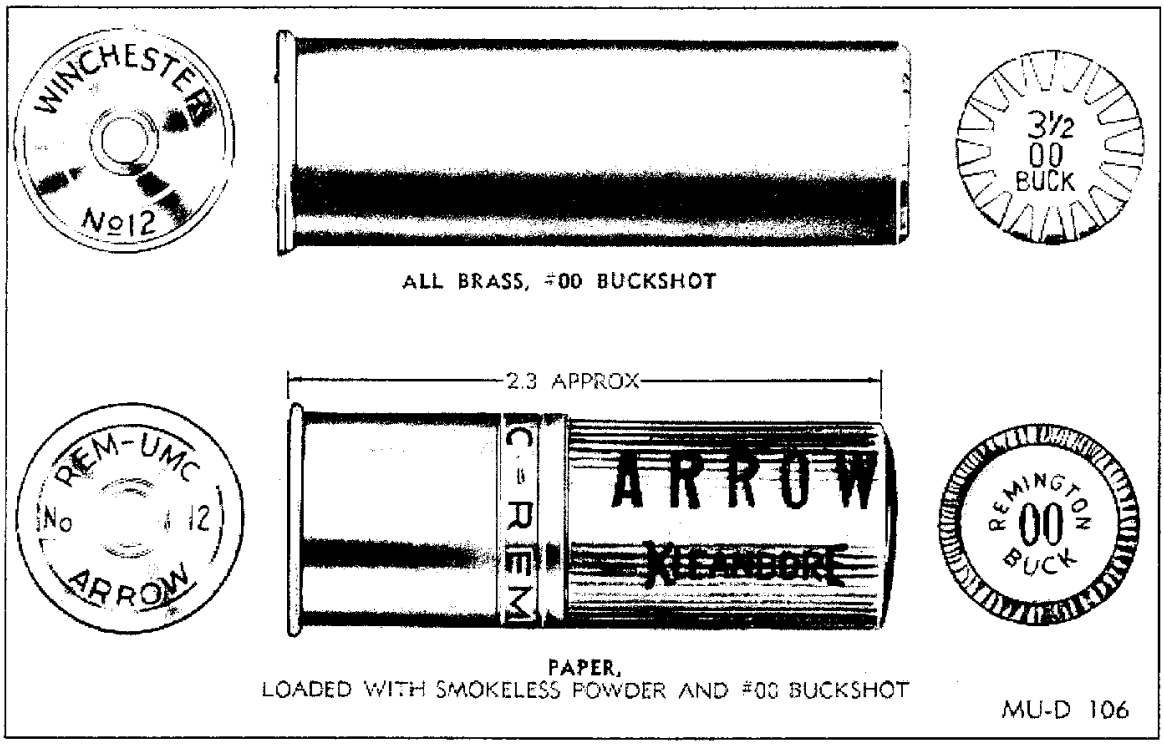


Figure 14. 12 gage shotgun shells

(2) Caliber .45 blank cartridges fired in exercises to condition dogs to gun fire.

(3) Caliber .22 hornet and .410 shotgun cartridges for firing in Air Force combination (survival) weapons for hunting purposes.

(4) Caliber.45 line-throwing cartridges for firing in caliber .45 line-throwing rifles. The Navy uses these for throwing lines from ship-to-ship. The Army Signal Corps uses these for projecting signal wires over elevated terrain.

(5) Shotshells containing the designated shot sizes as required for the following:

12 gage #00 Buck for guard duty
12 gage #4 Buck for guerrilla purposes.
12 gage #6, 7½ and 8 shot for clay target shooting for training purposes.
.410 gage #7 shot for caliber .22/.410 survival weapons maintained by aircraft

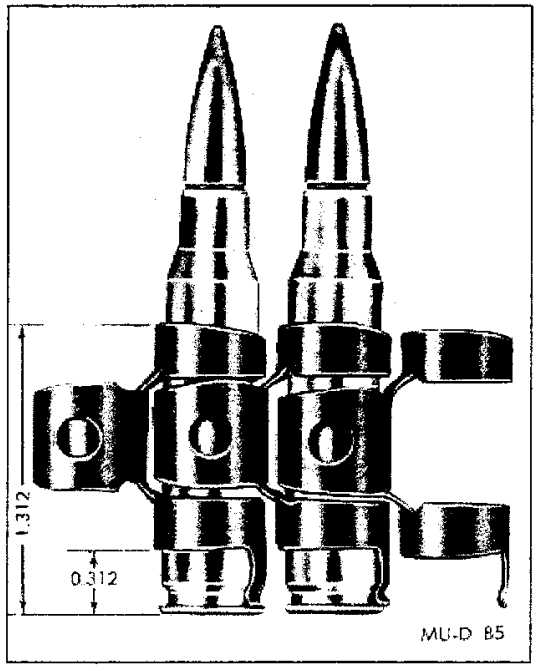


Figure 15. Linked 7.62-mm cartridges

Appendix C-15

Links for Caliber .30 and Caliber .50 Ammunition

Special purpose cartridges These also include the following types of military cartridges:

(1) Dummy. The dummy cartridge is used for practice in loading weapons and simulated firing to detect flinching of personnel when firing weapons. It consists of a cartridge case and a ball bullet. Cartridge identification is by means of holes through the side of the case or longitudinal corrugations in the case and by the empty primer pocket.

(2) Dummy inert-loaded. This cartridge consists of a cartridge case, a ball bullet and inert granular material in the case simulating the weight and balance of a live cartridge. The exterior of the cartridge is identified by a black chemical finish and by the absence of a primer. This cartridge is used by installations for testing weapon function, linkage and feed chutes.

(3) High-pressure test. High-pressure test ammunition is specially loaded to produce pressures substantially in excess of the maximum average or individual pressures of the corresponding service cartridge. This cartridge is not for field issue. It is used only by armorers and weapons mechanics for proof firing of weapons (rifles, pistols, machine guns) at place of manufacture, test and repair. Because of excessive pressures developed by this type of ammunition, and the potential danger involved in firing, proofing of weapons is conducted only by authorized personnel from fixed and shielded rests by means of a lanyard or other remote control methods.

Metallic Links and Clip

Metallic links. (figures. 15 and 16) are used with caliber .30, caliber .50, 5.56mm, 7.62mm and 20mm cartridges in machine guns. The links are made of steel, surface treated for rust prevention. They are used to assemble cartridges into linked belts of 100 to 750 cartridges per belt. The links must meet specific test and dimension requirements to assure satisfactory ammunition feed and functioning in the machine gun under all training and combat service conditions.

Different configurations of cartridge clips. These permit unitized packages of ammunition. This facilitates transfer of cartridges to appropriate magazines for caliber .30, 7.62mm and 5.56mm rifles. The caliber .30 eight-round clip feeds eight cartridges as a unit into the receiver of the rifle. The caliber .45 clip feeds three cartridges as a unit into the revolver cylinder. Five-round and eight-round clips are used with caliber .30 cartridges; five-round clips with 7.62mm cartridges; ten- round clips with caliber .30 carbine and 5.56-mm cartridges; and three-round clips with caliber .45 cartridges.

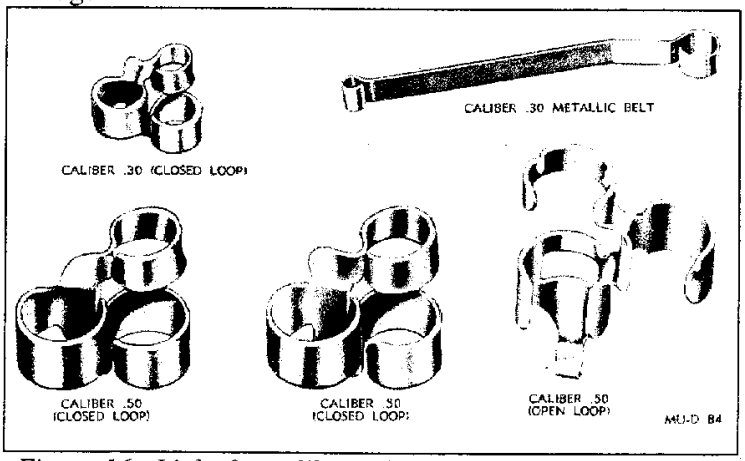


Figure 16. Links for caliber .30 and caliber .50 ammunition

Appendix C-16

Cartridges, Link Belt, Cartons, Bandoleers and Ammunition Box

Identification Markings. Each outer shipping container and all inner containers are fully marked to identify the ammunition. Wire- bound boxes are marked in black and ammunition boxes are painted olive drab, with markings in yellow. When linked ammunition is functionally packed, component lot numbers are replaced by a functional lot number. Typical packing and identification markings are illustrated in figures 17 through 19.

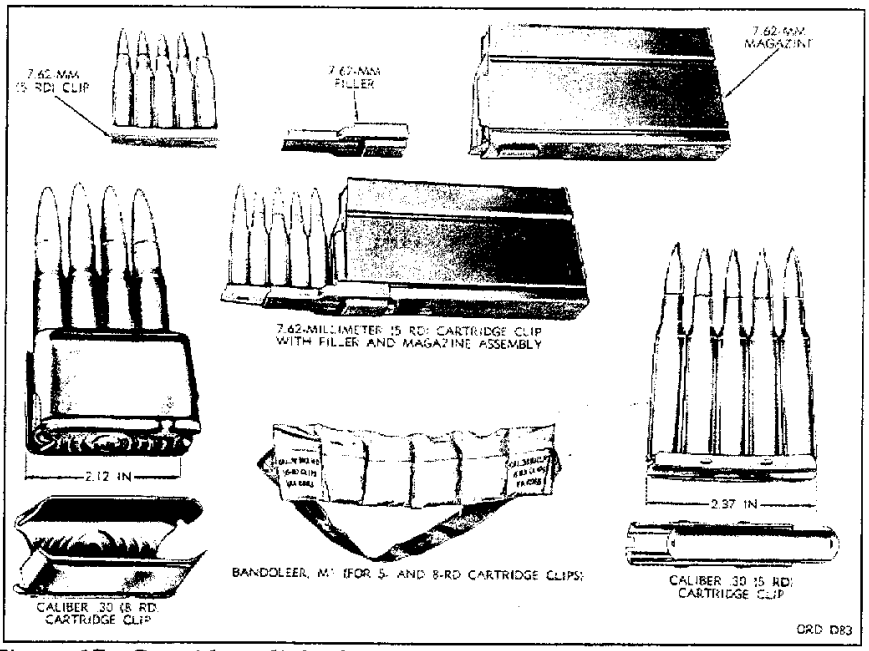


Figure 17. Cartridges, links, belt, cartons, bandoleers and ammunition box

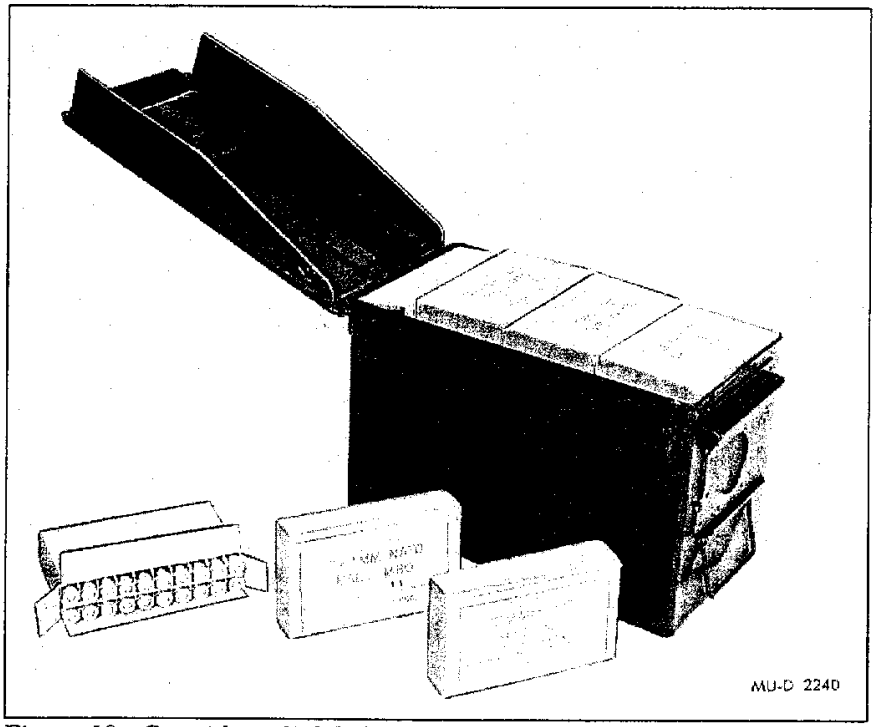


Figure 18. Cartridges, link belt, cartons, bandoleers and ammunition box

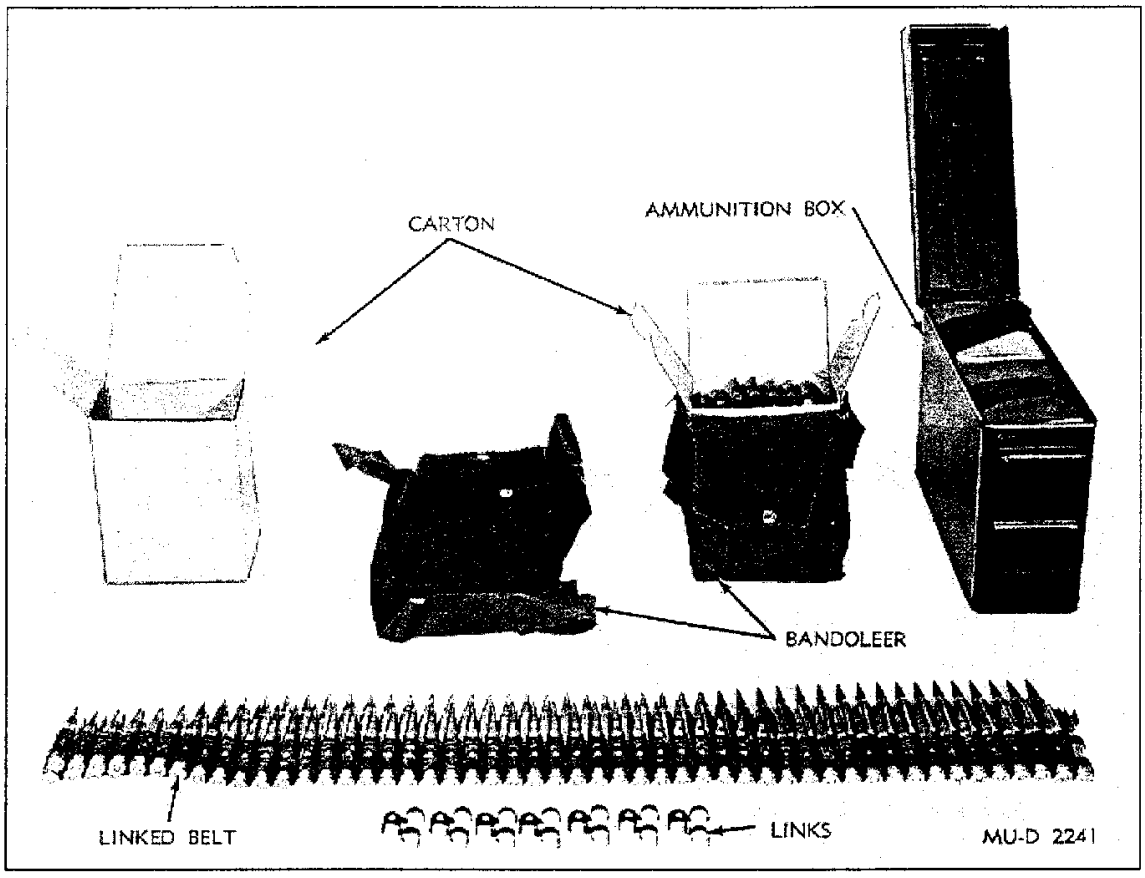


Figure 19. Cartridges, link belt, cartons, bandoleers and ammunition box

Care, Handling and Preservation

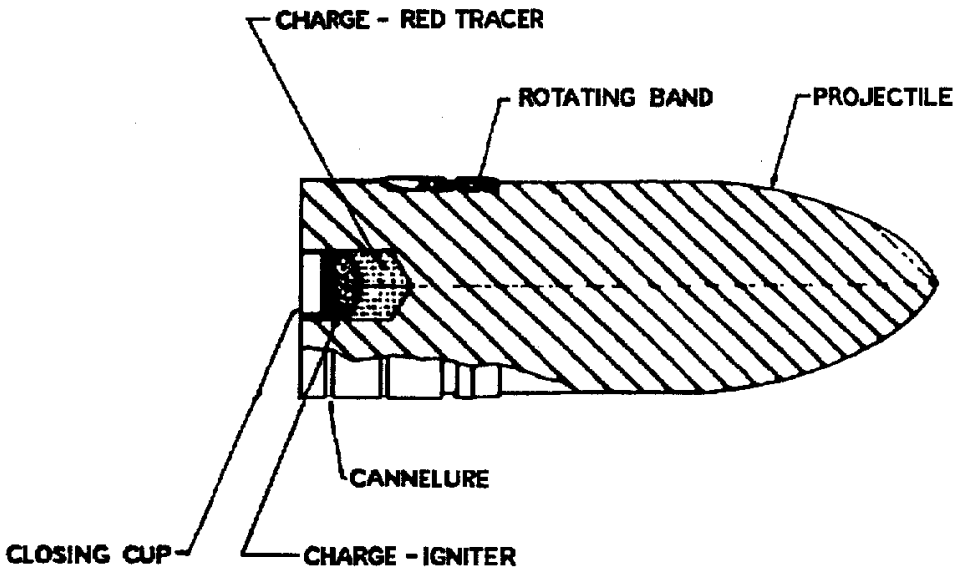
Small-arms ammunition is comparatively safe to handle. It is packed to withstand transportation, handling and storage conditions normally encountered in the field. However, consideration should be given to general handling precautions pertaining to ammunition and explosives.

Reference: This data is a reprint of Chapter 3, TM 9-1300-200, *Ammunition General,* October 1969

Appendix C-17

Projectile, 37MM, Armor Piercing, M74 with Tracer

PROJECTILE, 37mm, ARMOR PIERCING, M74 WITH TRACER



Complete round. As indicated by the nomenclature, this round does not include an armor-piercing cap. It was designed as "Substitute Standard" for SHOT, APC, M59.

Cartridge cases. M17 and M17B1 are "Standard" and "Substitute Standard" respectively.

Primer. M23A2, 20 grain, Percussion Primer is "Standard". Some rounds may contain M23A1 primer.

Propelling charge. 4 ounces of FNH powder impact a muzzle velocity of 2,050 feet per second.

Projectile. The projectile is exactly the same as the M74 used for 37-mm Tank and Antitank Guns M5, M6, M3, and M3A1.

Identification. The extracting groove on the cartridge case, and size of the round identify it as belonging to 37-mm antiaircraft group. The black painting with white stencil and the stubby nose distinguish it as SHOT, AP, M74. The complete round is 13.01 inches long and weighs 3.07 pounds.

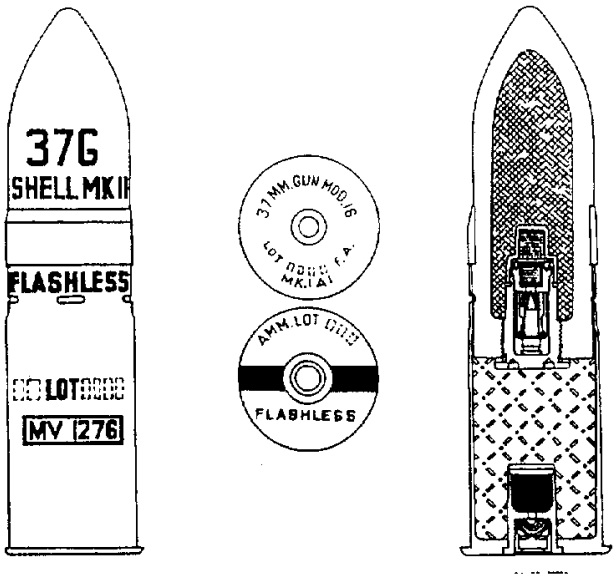
Projectile Length ..... 4.84 inch
Diameter ..... 1.44 inch
Color ..... Black with white markings
Weight ..... 1.92 pounds
Filler ..... None
Fuze ..... None

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-18

Shell, 37MM, HE, Fixed, MK II

SHELL, 37mm, HE, FIXED, MK II



Use. M1916 Gun

Description. The Mk II High-explosive Shell is standard for issue and manufacture although it is not widely used for infantry support. The Mk IA2 Cartridge Case with M23A2 Primer is standard for the high-explosive shell. However, older rounds may be found with the Mk IA2 or Mk IA1 Cartridge case and M23A1 Primers, or possibly with Mk I Cartridge Cases and M23A1 Primers. Approximately 550 grains of FNH powder is poured loosely into the cartridge case. The projectile is made of bar steel and has an explosive charge of 0.06 pounds of TNT. It is 4.45 inches long and has an ogive radius of 2.25 calibers. Since it is adapted for a base detonating fuze, the nose is continued to a rounded point. The total weight of the projectile with fuze and bursting charge is about 1 pound. The complete round is 6.92 inches long and weighs approximately 1.61 pounds The M38A1 Fuze is standard, replacing the M38, (modification to the detonator assembly) for the Mk II round. It is a typical nondelay fuze, being located in the base of the projectile and having no delay between the firing pin and the detonator. There is no positive separation between the detonating elements and the booster, so the fuze is not boresafe. On impact, the firing pin is carried forward by inertia and initiates the explosive train of detonator consisting of priming mixture, lead azide and tetryl. The projectile is painted olive drab and stenciled in yellow.

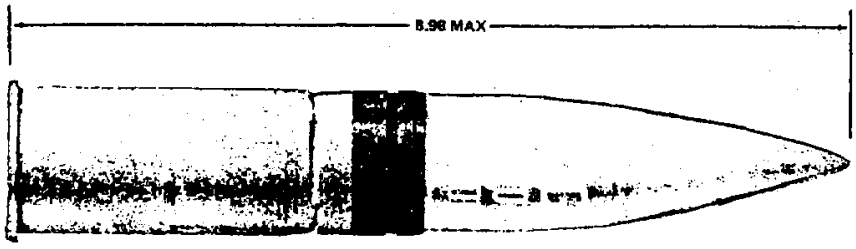
Length (projectile) ..... 4.45 inch
Over-all length w/cartridge case ..... 6.92 inch
Diameter ..... 37 mm
Weight, complete round ..... 1.61 pounds
Filler ..... TNT
Fuze M38, M38A1

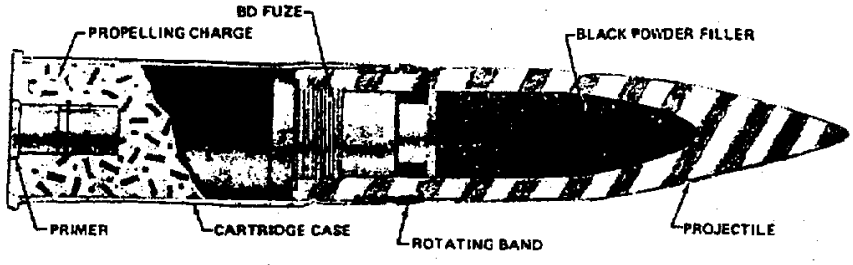
Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-19

Shell, 37MM, TP, M63 MOD 1

SHELL, 37mm, TP, M63 MOD 1





Use. This target practice cartridge is used in subcaliber 37-mm guns fitted to larger weapons for practice firing training.

Description. The cartridge consists of a black powder filled steel projectile crimped to a steel cartridge case and fitted with a base-detonating practice fuze. A rotating band encircles the projectile near the base. The cartridge case is loosely filled with propellant and is fitted with a percussion primer.

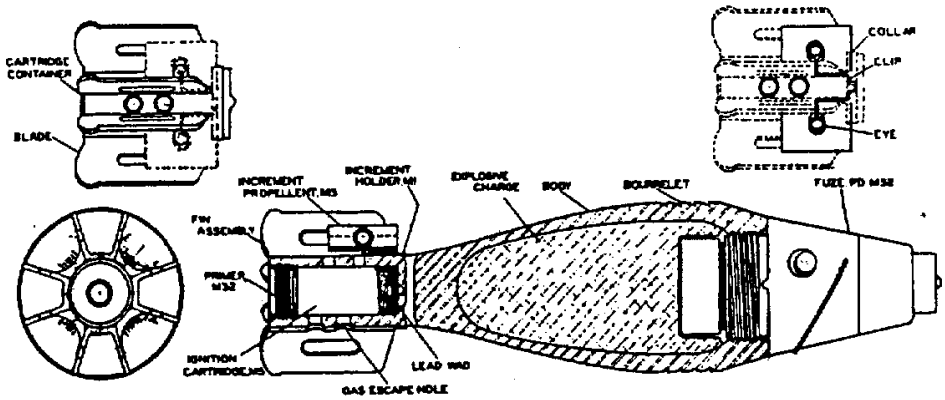
Weight ..... 2.01 pound
Length ..... 8.98 inch
Filler ..... Black Powder
Filler weight ..... 0.084 pound
Cartridge case MK1A2, MK1A2B1
Propellant ..... M2, 0.56 pound
Color ..... Blue with white markings
(brown band for later manufacture)

Reference: TM 43-0001-28, *Army Ammunition Data Sheets Artillery Ammunition*, April 1977

Appendix C-20

Mortar, 60MM, HE, M49A2, Practice, M50A2

MORTAR, 60mm, HE, M49A2, PRACTICE, M50A2



Description. The body of this shell may be constructed of forged steel, cupped-rolled, plate-welded longitudinally, or a machined casting. It is tear-dropped in shape, having a blunt nose and tapered tail. Near the nose end of the shell is a machined bourrelet which acts as a forward bearing surface and as a gas check. The nose is threaded to receive the fuze directly. The fuze used is the Point-detonating Fuze M525A2 which has a superquick action. The tail end is closed and internally threaded to receive the stabilizer assembly. The shell filler is 0.34 pounds of flake TNT. The ignition cartridge M5A1, contains 40 grains of double base powder. The propellant increments, M3, consists of square strips of double base powder sewn together. Each increment has 35 grains of finely granulated double base powder. The shell body is painted olive drab and stenciled in yellow.

Shell, Practice, M50A2. This shell is identical to the service round. It differs in that the filler consists of 0.05 pounds of black powder to act as a spotting charge, and 0.29 pounds of inert filler. The body is painted blue with white stenciling.

Over-all Length ..... 9.5 inch
Diameter (body) ..... 2.34 inch
Total Weight ..... 2.94 pound
Filler ..... TNT (flaked)
Filler weight ..... 0.34 pounds
Propellant ..... ballistite
Fuze ..... M52 PD
M525A1 PD
Painting and markings ..... Olive drab w/ yellow markings

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944, TM 9-1300-205, *Ammunition for Mortars*, September 1960

Appendix C-21

Mortar, 60MM, Practice, M50A2

MORTAR, 60mm, PRACTICE, M50A2

Use. This shell is a practice round provided for the 60mm mortars.

Description. Components of the M50A2 practice round are the same as used in the M49A2 service round except for the high-explosive shell filler. The M50A2 projectile has a filler of inert material (plaster of paris and stearic acid, and a black powder pellet (0.05-lb), adjacent to the booster of the M52A1 fuze. The M52A1 or M52A1B1 fuze is a superquick fuze and causes the shell to function upon impact. The black powder pellet and booster charge provide a spotting charge for observation purposes. The shell is loaded to the same weight as the service round, thereby providing for the same ballistic values. The M52A1B1 fuze is approximately 0.13 pounds lighter than the M52A1 fuze.

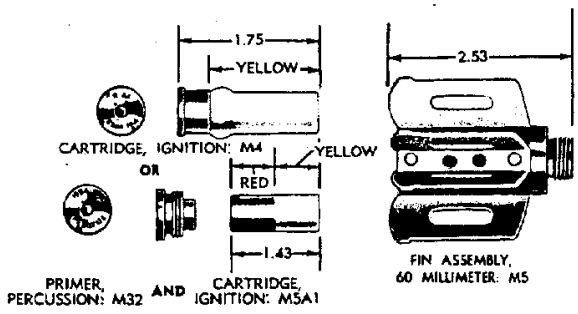
Weight assembled ..... 3.07 pounds
Length assembled ..... 9.59 inches
Filler ..... INERT with black powder pellet
Fuze ..... M52 series
Color ..... Blue w/White markings
Muzzle Velocity/Maximum Range
- **Charge 0** ..... 189 fps/332 yds
- **Charge 1** ..... 292 fps/784 yds
- **Charge 2** ..... 377 fps/1,204 yds
- **Charge 3** ..... 449 fps/1,594 yds
- **Charge 4** ..... 518 fps/1,990 yds

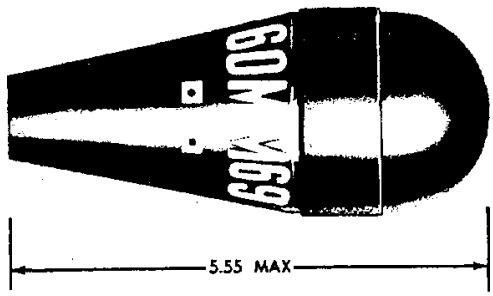
Reference: TM 9-1901, *Artillery Ammunition*, September 1950

Appendix C-22

Mortar, 60MM, Training, M69

MORTAR, 60mm, TRAINING, M69





Use. This cartridge is used for training in the loading and firing of 60-mm Mortars M2 and M19.

Description. Unlike other mortar ammunition, the components of this round are issued separately. This facilitates replacement of damaged, worn, or expended parts. The body of the shell is cast iron. It is tear-dropped with a blunt nose and tapered tail. It has a bourrelet on the body near the nose to act as a forward bearing surface and gas check. At the tail end is a recess which is threaded to receive a stabilizer assembly. The nose end is closed and rounded with no provisions made to receive a fuze. Its weight varies depending on its weight zone. Seven weight zones are possible with a minimum of 3.83 pounds for weight zones one and a maximum of 4.07 pounds for weight zone seven *without* fin assembly and ignition cartridge.

Fin assembly and propelling charge. The fin assembly consists of a machined cartridge container closed at one end with a threaded protrusion to screw into the shell body. It is hollow, with the other end threaded to receive an ignition cartridge and a percussion primer. Attached to the cartridge container are eight stationary fins. The shell can be fired more than one time. There are no propellant increments used, for the shell is designed to be fired in the first zone only.

Complete Round

- **Weight assembled** ..... 4.43 pounds
- **Length assembled** ..... 7.72 inches
- **Filler** ..... INERT
- **Ignition Cartridge** ..... M5A1 or M4
- **Propellant** ..... None
- **Percussion Primer** M32
- **Fuze** ..... None

Color

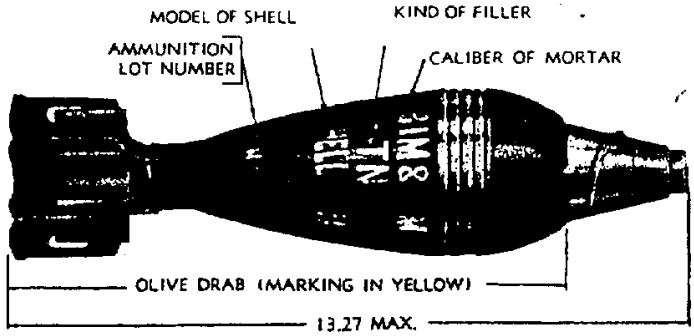
- **Old manufacture** ..... Black or blue w/White markings
- **New manufacture** ..... Bronze w/ White markings

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944; TM 9-1300-205, *Ammunition for mortars*, September 1960; TM 43-0001-28, *Army Ammunition Data Sheets, Artillery Ammunition*, April 1977

Appendix C-23

Mortar, 81MM, HE and Practice, M43A1

MORTAR, 81mm, HE AND PRACTICE, M43A1



Shell, HE, M43A1, Shell Body. It is constructed of forged steel. It is tear-dropped in shape; that is, blunt nose and tapered tail. It has a bourrelet machined near the nose of the shell consisting of several annular grooves which serves to act as a forward bearing surface and a gas check The nose is machined and threaded to receive an adapter. The adapter is threaded and acts as a bushing for a bakelite fuze well cup and the fuze. The fuze used is the Point-detonating Fuze M45. This fuze has a selective element and can be set for either superquick or delay action. The shell filler is 1.22 pounds of TNT. The total weight of the completely assembled round is 7.05 pounds. Entire length of the fuzed shell is 13 1/4 inches.

Fin assembly. The fin assembly consists of a machined cartridge container to which are attached six stationary fins. One end is threaded and screwed on to the body of the shell. The other end is machined and hollow inside so as to receive the ignition cartridge. Several holes leading from the interior to the exterior periphery of the cartridge container serve to conduct the flames from the ignition cartridge to the propellant increments which are seated in the fins.

Shell, Practice, M43A1. The shell body, components used, and packing are identical to the shell previously described. It differs in that the filler consists of 0.16 pound of black powder to act as a spotting charge, and 1.06 pounds of inert filler such as wax, talcum, or rosin. The body is painted blue with white stencil to indicate a practice shell.

Over-all Length ..... 13.25 inches
Diameter (body) ..... 3.16 inches
Total Weight ..... 7.05 pounds
Filler
- **HE** ..... TNT, 1.22 pound
- **Practice** ..... Black powder, 0.16 pound

Propellant ..... Ballistite
Fuze ..... M45, point-detonating
Painting and markings
- **HE** ..... Olive drab, yellow markings
- **Practice** ..... Blue, white markings

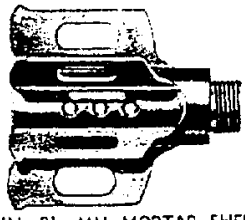
Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-24

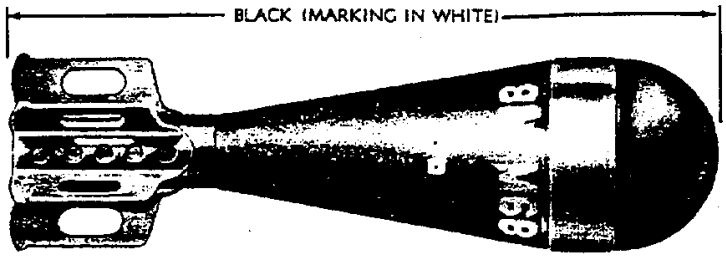
Mortar, 81MM, Training, M68

MORTAR, 81mm, TRAINING, M68

PRIMER, PERCUSSION, M33
AND
CARTRIDGE, IGNITION, M6



FIN, 81 - MM MORTAR SHELLS,
M43A1 AND M68



Use. The shell is designed to give the mortar crew training in loading and practice in firing under conditions which will not permit firing in more than the first zone.

Shell body. The body of the shell is cast iron. It is similar in shape to the light High Explosive, 81-mm shell which is tear-drop with a blunt nose and tapered tail. It has a bourrelet on the body near the nose to act as a gas check. At the tail end is a recess which is threaded to receive a stabilizer assembly. The nose is closed and rounded with no provisions made to receive a fuze. Its weight varies depending on its weight zone. Nine weight zones are used with a minimum of 9.50 pounds and a maximum of 10.10 pounds, weighed without fin assembly and ignition cartridge.

The fin assembly and propelling charge. The fin assembly consists of six stationary fins. It receives the Ignition Cartridge M3. Several ignition cartridges are provided with each round so the shell can be fired more than one time. There are no propellant increments used because the shell is designed to be fired in the first zone only. The maximum range is 350 yards.

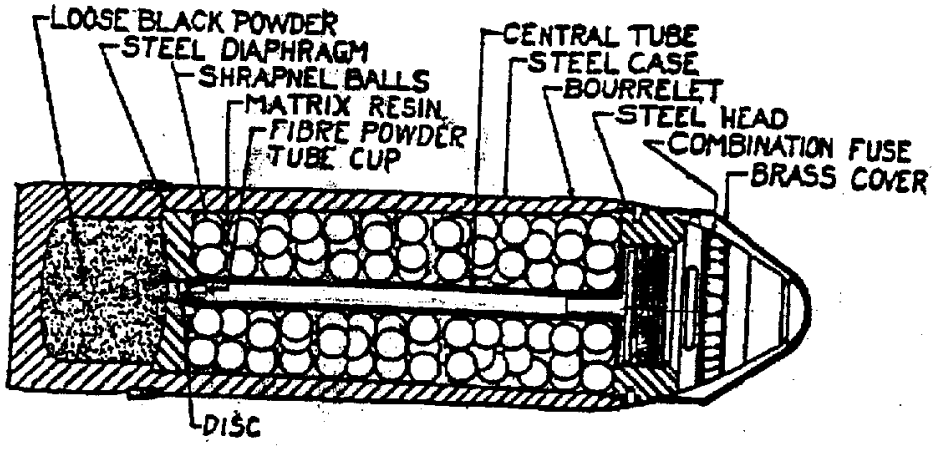
Markings. The shell is painted black with white stencil. On the shell body may be found a number of white squares (one to nine) with a prick punch mark in the center of each to indicate the zone weight.

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-25

Projectile, 75MM, Shrapnel, MK I

PROJECTILE, 75mm, SHRAPNEL, MK I



Description. This projectile consists of a steel case, near the base of which a shoulder is formed on the interior surface. A base charge of 3 ounces of black powder is packed in the base of the projectile beneath a diaphragm of steel which rests on the shoulder. This diaphragm also supports a flash tube, the upper end of which is flared out into a smaller thin diaphragm. Between the two diaphragms is held a charge of melted resin which holds 270 lead balls suspended within it. These balls average 42 to the pound, the 270 totaling 6 pounds, 7 ounces. Above the lower diaphragm, the interior of the shrapnel case is gradually enlarged in diameter so that it tapers outward from the base to head. The top of the case is closed by a steel head which fastens to the case with a fine thread, and which is adapted to the fuze with a coarse thread. The shrapnel is issued fuzed with the 21-second Combination Fuze M1907M, which is set at safe, and covered with a metallic moisture proof cap.

Function. The flame from the magazine charge of the fuze flashes down the central tube and ignites the black powder base charge. Explosion of this charge forces the lower diaphragm matrix and balls, and flash tube upward, blowing off the fuze and the head as a unit, the rupture occurring at the fine threads between the head and the case. It is painted red and stenciled in black with the designations of weapon, and complete round.

Fuze	M1907M 21-sec Combination Time fuze
Cartridge Case	M18
Propelling Charge	A normal charge of 1.69 pounds of powder which imparts a muzzle velocity of about 1,755 feet per second.
Primer	M1B1A1
Guns	This round is issued for the 75mm field gun only.

Reference: TM 9-1904, *Ammunition Inspection Guide*, March 1944

Appendix C-26

Shell, 75MM, Armor Piercing, M72

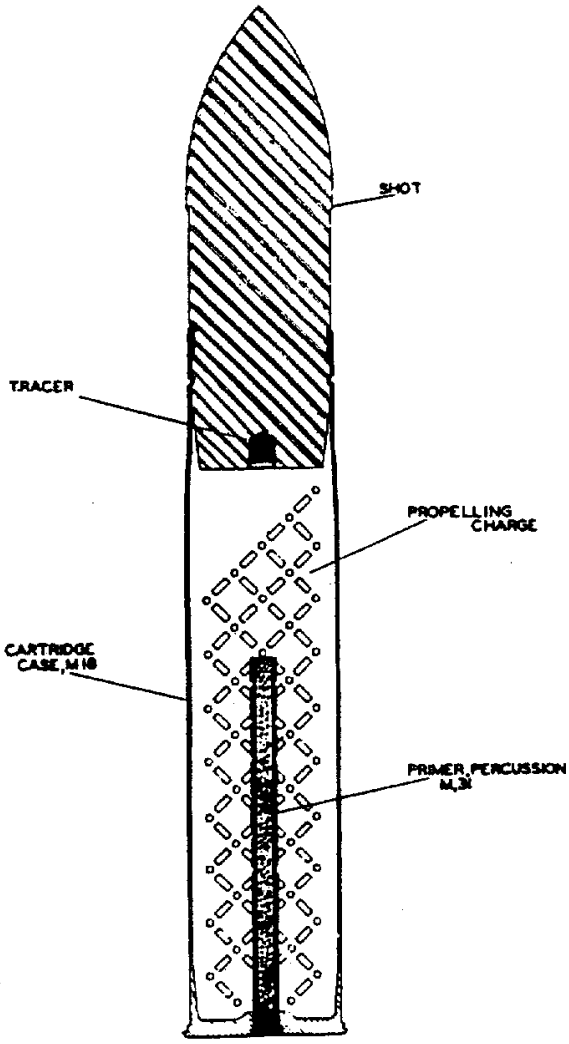
SHELL, 75mm, ARMOR PIERCING, M72

General. This round was developed as a substitute for the M61 & M61A1. It has no armor-piercing cap. It does, however, fulfill the requirement of the using arms for armor-piercing ammunition.

Projectile. This projectile is a solid hardened steel shot with a small cavity in the base in which is incorporated a tracer element similar to that of the M66A1 base detonating Fuze and that of the M61 Projectile. It has a 1.5-caliber radius of ogive, a rotating band of gliding metal, a fringing groove, a single groove for stab crimping of the cartridge case to the projectile, and a boat-tail base with a 9-degree taper. The absence of the armor-piercing cap as stated above caused it to be lesser efficiency than the M61 APC Projectile, having a greater tendency to ricochet on angled impacts and no protection against breaking of the nose on impact. The projectile is painted black and stenciled in white with designations of the weapon and the complete round.

Propelling charge. A super charge of average weight of 1.90 pounds of FNH powder.

Guns. This round is provided , as described above, for all types of 75-mm guns.



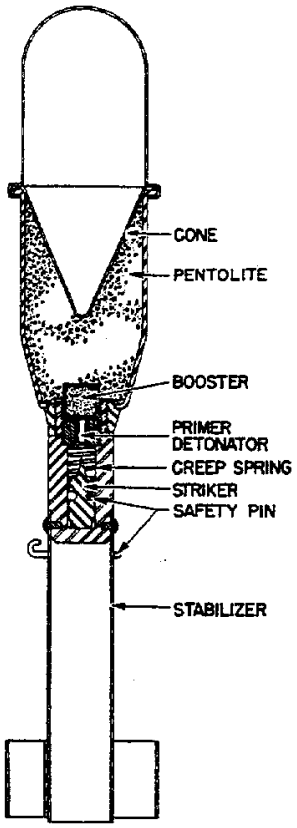
Cartridge Case M18
Propellant ..... 1.90 lb. FNH powder
Primer M31
Fuze ..... None
Painting and markings ..... Black with white w markings

References: TM 9-1904, *Ammunition Inspection Guide*, March 1944; *Department of Ordnance, Complete Round Chart, No 5981*, December 1940

Appendix C-27

Rifle Grenade, Anti-Tank, M9A1

RIFLE GRENADE, ANTI-TANK, M9A1



Description. Anti-Tank Grenade M9A1 consists of a body, a stabilizer assembly, and a fin. The body is cylindrical, the two pieces joined in the middle with rounded ends. The stabilizer is a hollow tube that screws into the base of the body and fits over the launcher. The body is made of cast metal. The impact fuze, which consists of a striker held away from the detonator by a creep spring and a safety pin, is assembled integrally with the stabilizer assembly. The safety pin projects through the fuze body and clamps around the stabilizer tube. When the pin is withdrawn, a drop of two feet, nose first, to a hard surface will cause the fuze to function.

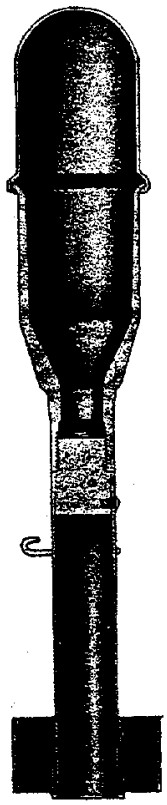
Length ..... 11.24 inches
Diameter ..... 2.25 inches
Color ..... Olive drab
Weight ..... 1.23 pounds
Filler ..... Pentolite or TNT
Weight of filler ..... 4 ounces

Reference: NAVSEA OP 1664 Volume 1&2, U.S. *Explosive Ordnance*, February 1954

Appendix C-28

Rifle Grenade, Practice, M11A2

RIFLE GRENADE, PRACTICE, M11A2



Description and Use. This grenade simulates the Anti-Tank Grenade M9A1. The grenade consists of a body, a stabilizer assembly, and a fin. The body is cylindrical, the two pieces joined in the middle with rounded ends. The stabilizer is a hollow tube, which screws into the base of the body and fits over the launcher. The body is made of cast metal. It was so constructed that the fin and the ogive (upper body assembly), which are most liable to damage in use, may be replaced and the grenade used repeatedly. It is for training in marksmanship. This item is inert and contains no explosives. Except for color and filler, the grenade is identical to the tactical M9A1.

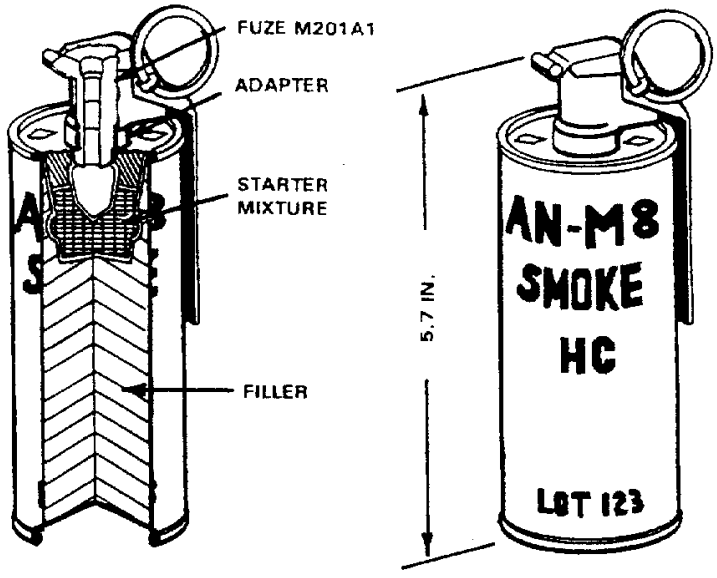
Length ..... 11.18 inches
Diameter ..... 2.25 inches
Filler ..... INERT
Color ..... Black

Reference: NAVSEA OP 1664, *U.S. Explosive Ordnance*, May 47

Appendix C-29

Grenade, Hand, Smoke, HC, AN-M8

GRENADE, HAND, SMOKE, HC, AN-M8



Use. The HC Smoke Hand Grenade AN-M8 is a burning type grenade used to generate white smoke for screening activities of small units. It is also used for ground-to-air signaling.

Description. The grenade body is a cylinder of thin sheet metal. It is filled with HC smoke mixture with a starter mixture directly under the fuze opening. The duration of the smoke screen or signal is 105 to 150 seconds.

The Fuze M201 and M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first fire mixture, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever and safety pin with pull ring.

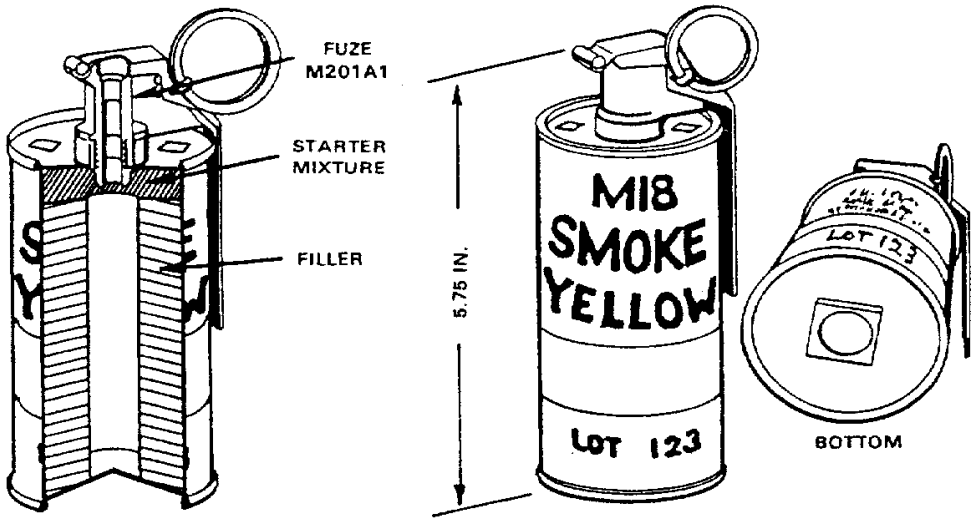
DODAC 1330-G930
Length ..... 5.7 inches
Diameter ..... 2.5 inches
Color ..... Blue gray or light green with black markings
Weight ..... 24 ounces
Filler ..... Hexachlorethane-zinc (HC)
Weight of filler ..... 19 ounces

Reference: TM 43-0001-29 w/change 11, *Ammunition Data Sheets for Grenades*, October 1977; NAVSEA OP 1664 Volume 2, *U.S. Explosive Ordnance*, May 47

Appendix C-30

Grenade, Hand, Smoke, M18, With Fuze, M201, M201A1

GRENADE, HAND, SMOKE, M18, WITH FUZE, M201, M201A1



Description. These grenades may be filled with any one of seven smoke colors; red, orange, blue, green, black, violet, and yellow. The grenade body is of thin sheet metal and filled with a smoke composition. Emission ports are covered with small squares of adhesive tape and vary in quantity and location depending on the year of manufacturing.

The Fuze M201 and M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first fire mixture, pyrotechnic delay column, and ignition mixture

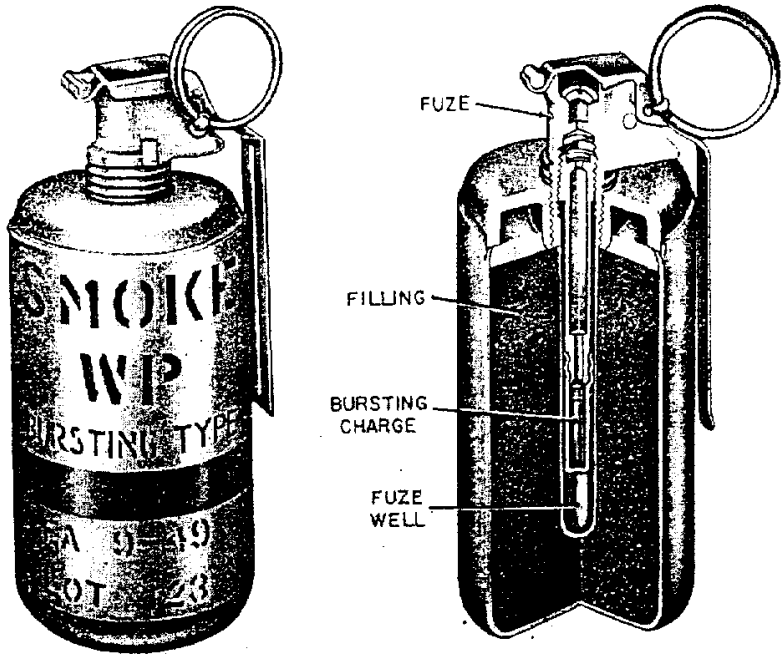
Length ..... 5.75 inches
Diameter ..... 2.5 inches
Color ..... Blue gray or light green with black markings
Weight ..... 19 ounces
Filler ..... Smoke composition
Weight of filler ..... 11.5 ounces
Fuze M201A1

Reference: TM 43-0001-29 w/change 11, *Ammunition Data Sheets for Grenades*, October 1977; NAVSEA OP 1664, *U.S. Explosive Ordnance*, May 47

Appendix C-31

Grenade, Hand, Smoke, WP, M15

GRENADE, HAND, SMOKE, WP, M15



Use. White Phosphorous (WP) smoke, M15 is a bursting type grenade used for signaling, screening and incendiary purpose. The screening effect of the smoke is limited because WP burns with such intense heat, the smoke tends to rise rapidly. Pieces of WP will burn for about 60 seconds, igniting any flammable substance contacted.

Description. The grenade body is of sheet steel and is cylindrical in shape. The body has a fuze well liner and is filled with WP.

Fuze. The Fuze M206A1 and M206A2 are pyrotechnic delay-detonating fuzes. They differ only in body construction. The body contains a primer and a pyrotechnic delay column. Assembled to the body are a striker, striker spring, safety lever, safety pin with pull ring, and a detonator assembly. The split end of the safety pin has an angular spread or a diamond crimp.

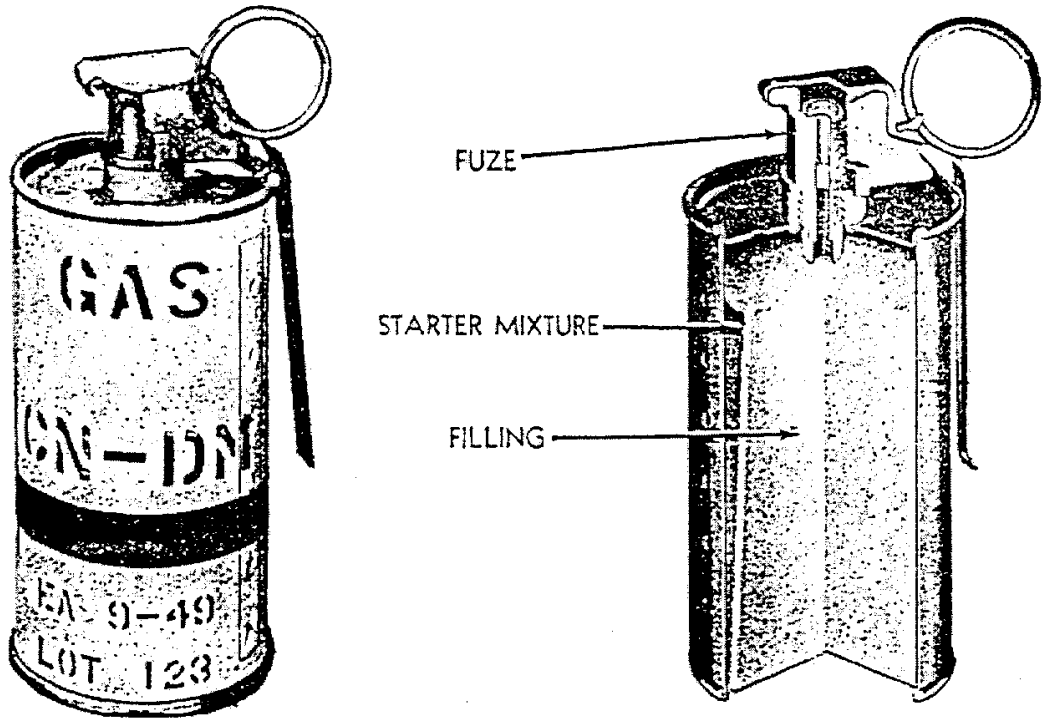
DODAC 1330-G935
Length ..... 4.5 inches
Diameter ..... 2.38 inches
Color ..... Grey with 1 yellow band and yellow markings
Weight ..... 31 ounces
Filler ..... White Phosphorous (WP)
Weight of filler ..... 15 ounces
Fuze M206A1, M206A2

Reference: TM 43-0001-29 w/change 11, *Ammunition Data Sheets for Grenades*, October 1977

Appendix C-32

Grenade, Hand, Irritant, CN-DM, M6

GRENADE, HAND, IRRITANT, CN-DM, M6



Description. The body of the M6 grenade is about 2½ inches in diameter and approximately 4½ inches high, made of 28 gage rolled steel. In the top of the body is a fuze adapter to receive the fuze assembly. Evenly spaced around the fuze adapter are emission holes covered with waterproof adhesive tape. In addition, it has three rows of 6 emission holes each in its body walls. The filling for this grenade consists of about 10 ounces of a mixture of chloroacetophenone (CN), adamsite (DM), and EC smokeless powder. A starter mixture, with binder, is contained in a zinc or plastic cup attached inside the top of the container. A fuze of the Bouchon type (M201) is positioned over the starter mixture through a threaded adapter in the top of the grenade. The fuze lever is held in an unarmed position by a ringed safety pin to prevent accidental ignition.

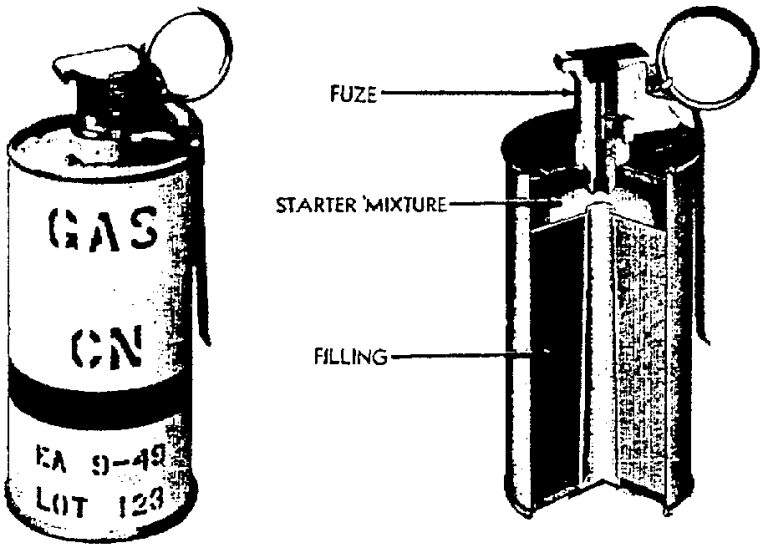
Length (body)	4.5 inches
Diameter	2.5 inches
Color	Blue gray or gray with 1 red band & red markings
Filler	chloroacetophenone (CN), adamsite (DM) and EC smokeless powder.
Weight of filler	10 ounces
Fuze	M201

Reference: TM 3-300, *Miscellaneous Chemical Munitions*, March 1950

Appendix C-33

Grenade, Hand, Tear, CN, M7 and M7A1

GRENADE, HAND, TEAR, CN, M7 and M7A1



Description.

M7A1. This grenade is a cylindrical thin sheet metal container with four emission holes in the top and one in the bottom. The filler is a mixture of CN, sugar, potassium chlorate, potassium bicarbonate, and a finely divided inert substance (diatomaceous earth). The emission holes are covered with adhesive tape to protect the filling from moisture. This grenade is filled with CN. The Fuze M201A1 is a pyrotechnic-igniting fuze.
M7. This grenade is similar to the M7A1 grenade, except that the M7 grenade has 18 emission holes in the sides and none in the bottom. It also contains less filler and produces about half as much effective CN gas as the M7A1. The grenade operates and functions in the same manner as the M7A1.

DODAC 1330-G960
Length ..... 5.7 inches
Diameter ..... 2.5 inches
Color ..... Blue gray or gray with 1 red band & red markings
Weight
  M7 ..... 17 ounces
  M7A1 ..... 18.5 ounces
Filler ..... CN- Pyrotechnic composition
Weight of filler
  M7 ..... 10.25 ounces
  M7A1 ..... 12.5 ounces
Fuze M201A1

Reference: TM 43-0001-29 w/change 11, *Ammunition Data Sheets for Grenades*, October 1977; TM 3-300, *Miscellaneous Chemical Munitions*, Mar 50

APPENDIX D

REPORTS/STUDIES

APPENDIX D-1

INVENTORY PROJECT REPORT

APPENDIX D

REPORTS/STUDIES

D-1 Inventory Project Report, Camp Lockett, Campo, California. Site Survey Summary Sheet, dated 25 September 1998; Findings of Fact, dated 28 January 1999; Project Summary Sheet, dated 25 September 1998; RAC Form, dated 25 September 1998. U.S. Army Corps of Engineers, Los Angeles District

Rec'd 4 Mar 9
CD

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
333 Market Street, Room 923
San Francisco, California 94105-2195

REPLY TO
ATTENTION OF:

CESPD-PM-R

28 JAN 1999

MEMORANDUM FOR

Commander, U.S. Army Corps of Engineers, (CEMP-RF),
20 Massachusetts Avenue, N. W., Washington, DC 20314-1000

Commander, U.S. Army Engineering Center, Huntsville, (HTRW-CX) Mar 97
P.O. Box 1600, Huntsville, Alabama 35807-4301

Commander, U.S. Army Engineer District, Omaha (HTRW-CX),
P.O. Box 103, Downtown Station, Omaha, Nebraska 68101-0103

SUBJECT: Defense Environmental Restoration Program For Formerly Used Defense Sites (DERP-FUDS), Inventory Project Report (INPR) Camp Lockett, Campo, California, Site No. J09CA707800

1. References:

a. Memorandum CEMP-RF, 17 Jan 1997, Subject: Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) - Delegation of Preliminary Assessment/Inventory Project Report (PA/INPR), Project Approvals to Division Commanders.

b. DERP-FUDS Program Manual, U. S. Army Corps of Engineers, Directorate of Military Programs, Division of Environmental Restoration, Washington, D.C., July 96.

c. CEMP-RF memorandum, 16 Oct 96, Subject: Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) - Preliminary Assessment Funding.

2. The INPR for the former Camp Lockett site is approved by SPD in accordance with Ref 1a and I am forwarding it to you for your information and appropriate action. The site has been found to be eligible for DERP-FUDS by the enclosed INPR. The proposed CON/HTRW and OEW projects are also determined to be eligible.

CESPD-PM-R
SUBJECT: Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS), Inventory Project Report (INPR) Camp Lockett, Campo, California, Site No. J09CA707800

3. Therefore I approve the proposed CON/HTRW and OEW projects, Numbers J09CA707801 and J09CA707802.

Encl

PETER T. MADSEN
COL(P), EN
Commanding

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

CESPL-ED-SI

25 November 1998

MEMORANDUM FOR Commander, South Pacific Division, ATTN: CESPD-PM-R, Vince Del Greco

SUBJECT: DERP-FUDS Inventory Project Report (INPR) for Site No: J09CA707800

1. Enclosed is the INPR for:

- J09CA707800 CAMP LOCKETT

We determined that contamination eligible under DERP-FUDS may exist at this site.

2. I recommend the following:

a. Findings and Determination of Eligibility for the INPR be signed and the CON/HTRW project approved.

b. Forward a copy of this report to Commander, Huntsville Engineering and Support Center (Bob Britton) to determine if follow on action is appropriate for the ordnance contamination identified at CAMP LOCKETT, Site No. J09CA707800.

c. Request CESPD distribute funds to the Los Angeles District to accomplish the CON/HTRW project.

3. Questions regarding this INPR should be directed to Jeffery Armentrout, Technical Manager, at (213)452-3720. For matters relating to project execution, contact Debra Castens, Project Manager, at (213) 452-3990.

FOR THE COMMANDER:

GEORGE L. BEAMS, P. E.
Chief, Engineering Division

Encl

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FORMERLY USED DEFENSE SITES
FINDINGS AND DETERMINATION OF ELIGIBILITY

CAMP LOCKETT
CAMPO, CALIFORNIA
SITE NO. J09CA707800

FINDINGS OF FACT

1. The Army acquired 7,111.748 acres for Camp Lockett as follows: 702.438 acres in fee from private parties and the County of San Diego between 30 November and 23 December 1942; 2,358.09 acres in Use Permit from the Department of Interior (DOI) on 5 October 1943; 3,847.49 acres in lease from private parties, circa 1942-1943; and 203.73 acres in lesser interests (permit, license, and easement) from private parties, the City of San Diego, and the San Diego & Arizona Eastern Railroad between 11 July 1941 and 29 August 1945.

2. The Army used Camp Lockett initially for cavalry training and border defense. Over 400 buildings were constructed, including barracks, administration buildings, a hospital, water and sewage treatment plants, two gas stations, stables, and recreational facilities. Additionally, several arms training areas were located on the property. In 1944 Mitchell Convalescent Hospital and a prisoner of war camp were established on the site.

3. The Army disposed of 7,111.748 acres, total. Between 1 July 1943 and 18 April 1947, 3,457.49 acres in lease were canceled. On 9 July 1948, 2,358.09 acres in Use Permit were retransferred to the Department of Interior. Permits with private parties were terminated on 18 April 1946 for 160.0 acres, and 15 March 1947 for 40.0 acres. On 30 September 1946, the War Assets Administration assumed accountability for 1,096.168 acres which were disposed of as follows: 113.0 acres in lease terminated on 1 April 1947; 671.21 acres in fee quitclaimed to the County of San Diego on 7 June 1950 (acreage includes an Exception of 36.4 acres in fee quitclaimed to the Mountain Empire High School District on 15 September 1949); and 277.0 acres in two leases, 31.228 acres in fee, and 3.73 acres in lesser interests disposed of by means unknown. Over 70 buildings remain, most of which are in use by private parties and the County of San Diego for housing, school, community, or commercial purposes. Three fuel underground storage tanks not confirmed to have been used beneficially are suspected on the site.

DETERMINATION

Based on the foregoing Findings of Fact, this site has been determined to be formerly used by the Department of Defense. It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites, established under 10 USC 2701 et seq.

28 JAN 1999
DATE

PETER T. MADSEN
Colonel (P), U.S. Army
Commanding

SITE SURVEY SUMMARY SHEET
FOR
DERP-FUDS SITE NO. J09CA707800
CAMP LOCKETT
25 September 1998

SITE NAME: CAMP LOCKETT; also Mitchell Convalescent Hospital.

LOCATION: The Camp Lockett site is located in Campo, California, approximately 40 direct miles east of downtown San Diego.

SITE HISTORY: The Army acquired 7,111.748 acres for Camp Lockett between 1941 and 1945. The Army used the site initially for cavalry training and defense of the U.S./Mexican border. It was later used for a convalescent hospital and prisoner of war camp. Improvements were of both semi-permanent and theater-of-operations type construction. Arms training areas included ranges for pistols, rifles, rifle and hand grenades, sub-machine guns, .50-caliber weapons, mortar, 37mm weapons, and 75mm weapons. All Camp Lockett property was disposed of between 1943 and 1950. Over 70 buildings and the sewage treatment plant remain, and most are in beneficial use by private parties and the County of San Diego. The county has operated the Rancho Del Campo juvenile detention facility in the former Camp Lockett hospital area since 1950. Other buildings are used for commercial, community, and residential purposes. Three fuel underground storage tanks (USTs) not confirmed to have been used beneficially are suspected on the site. Two USTs installed at this U.S. Border Patrol Station by the Immigration and Naturalization Service many years ago were removed in 1993 and there is a plume of ground water contamination associated with those USTS. Groundwater monitoring is ongoing for this non-FUDS Border Patrol Station which is on the Camp Lockett site.

A small landfill which may have been used by the Army is located approximately 1,000 feet north of the U.S./Mexican border in Section 22 of Township 18 South, Range 5 East. No information was available pertaining to the type of material the Army may have disposed of in the landfill. Visible refuse on the surface, including household items, vehicles, a 55-gallon drum containing burned trash, and various metal/plastic/styrofoam materials, indicate that civilians have used the site in recent years.

Waste materials suspected to comprise the residuum from the Army incinerator may have been disposed of near a certain dirt road in the SW¼ of Section 16 in Township 18 South, Range 5 East. Medical waste was reported to exist in this area. Identified materials include small medicine-type bottles, a cold cream jar, a broken ceramic dinner plate, a horseshoe, and pieces of what appear to be asbestos shingles. The shingles may match those used for siding on some of the existing Camp Lockett buildings. Of note was that some eroded soil that contained the waste material was blackened, and the cold cream jar and some of the other glass items were distorted from exposure to high temperatures. However, these materials are not clearly linked to the Army.

SITE VISIT: The site was visited in November 1996, January and May 1997, and July 1998 by Steve Cameron of Science Applications International Corporation, San Diego, California. The primary site contacts were Mr. Mike Dick and Mr. Dan Arce, San Diego County, Department of General Services, Facilities Maintenance, Campo.

CATEGORY OF HAZARD: OEW, CON/HTRW, PRP/HTRW (NOFA), HTRW (NOFA), BD/DR (NOFA).

PROJECT DESCRIPTION:

a. OEW. Recommend the Huntsville Engineering and Support Center make a determination regarding further investigation at this site.

b. CON/HTRW. Conduct geophysical surveys to determine whether two 5,000-gallon gasoline USTs and one 550-gallon oil UST are present. Remove and dispose of detected tanks and piping, sample soil, and backfill to grade.

Two 12,000-gallon gasoline tanks may have been installed in an area that was of theater-of-operations type construction and were probably mounted above ground on cradles. Assuming this is correct, the 12,000-gallon tanks have been removed. Thus, no project is recommended for these two tanks.

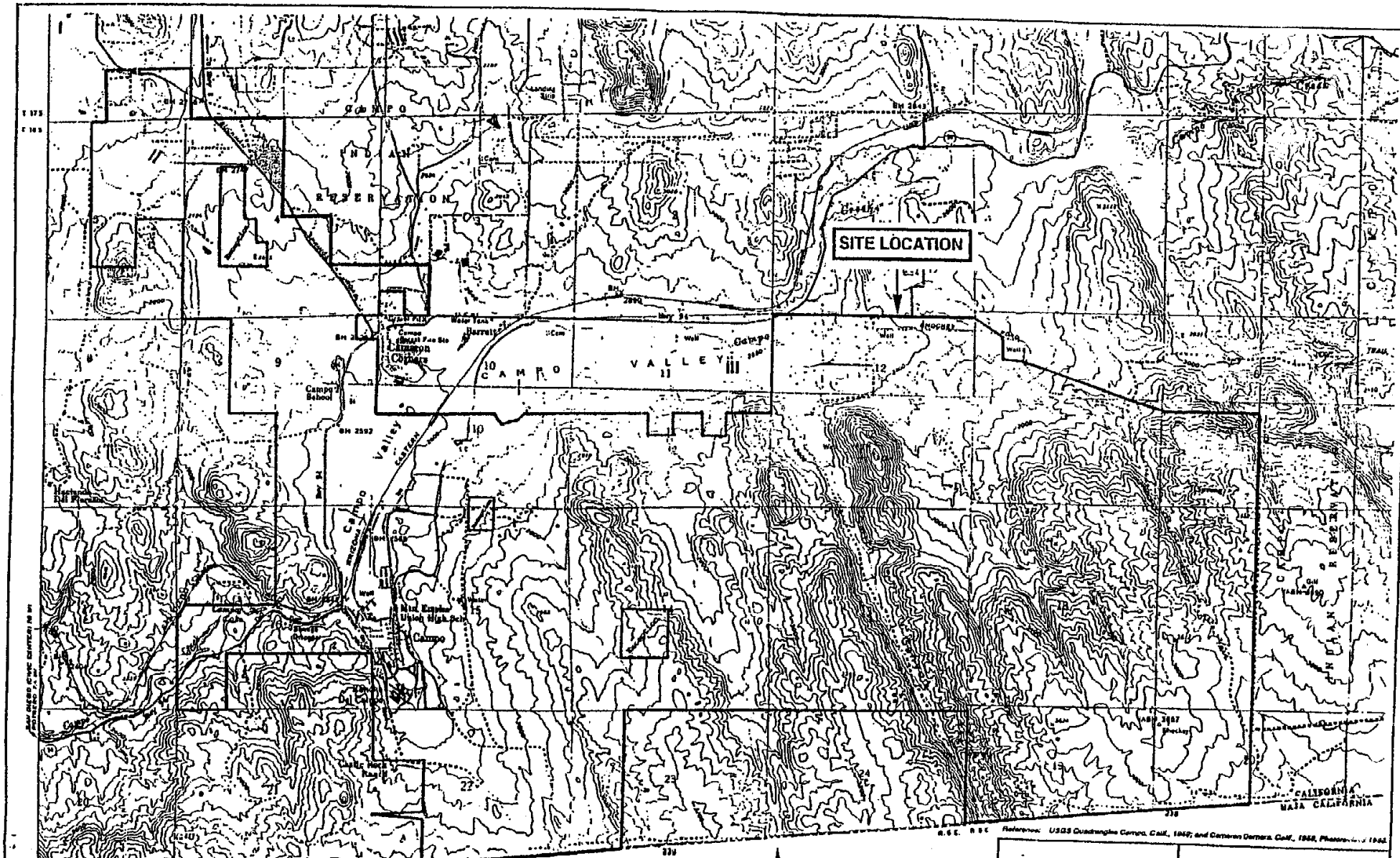
c. PRP/HTRW. A landfill which may have been used by the Army contains visible civilian refuse. Available information did not describe materials potentially placed in the landfill, if the landfill was used at all by the Army. The available information did not suggest that any materials were of a hazardous nature. No further action is recommended.

d. HTRW. Waste materials suspected to comprise incinerator residuum are not clearly hazardous in nature nor are the wastes clearly linked to the Army. No further action is recommended at this time.

e. BD/DR. Concrete building foundations, footings, and associated debris, do not present a clear danger and are therefore not eligible for removal. Some existing buildings have asbestos containing materials, however asbestos removal is not eligible under DERP-FUDS.

AVAILABLE STUDIES AND REPORTS: Records for Camp Lockett are maintained by the National Archives in Laguna Niguel, California, and by the U.S. Army Corps of Engineers, L.A. District, Real Estate Division. The Mountain Empire Historical Society in Campo, California maintains various documents pertaining to Camp Lockett. The County of San Diego Real Property Division maintains construction and site drawings for Camp Lockett.

DISTRICT POC: Jeffery B. Armentrout, Los Angeles District, (213) 452-3720.



SAIC®
Science Applications International Corporation
An Employee-Owned Co...

SITE LOCATION
CAMP LOCKETT
J08CA707800
Campo, CA

PROJECT NO.		
01-0255-04-7093		
DRAWN BY	CHECKED BY	DATE
SC	EB	9-98

PROJECT SUMMARY SHEET
FOR
DERP-FUDS OEW PROJECT NO. J09CA707801
CAMP LOCKETT
SITE NO. J09CA707800
25 September 1998

PROJECT DESCRIPTION: The drawing *Camp Lockett, Campo, California*, 1985, revised 1992, by James W. Hinds, shows numerous arms training areas and ranges which are depicted on an inset as follows: *Drill Field/Rifle Grenades, Rifle Range, Infiltration Course, 75mm Firing Positions, 75mm Impact Area, .50-Caliber and 37mm Training Area, Pistol Range, Mortar and Hand Grenade Training Area, Pistol Ranges, Sub-Machine Gun Ranges, Mounted Pistol Course,* and *Auxiliary 1,000-Inch Range.*

The target pit associated with the above-listed *Rifle Range* was observed at an approximate location of NW¼NE¼ of Section 14 in Township 18 South, Range 5 East. The concrete wall of the target pit was estimated to have a length of about 600 feet and extent about 10 feet below grade. The backstop consisted of an irregular hillside on which were found a discontinuous array of weathered, asphaltic bricks. In and amongst the bricks and soil were .30-caliber bullets.

The above-listed *75mm Firing Positions* are believed to be located, at least in part, on the 10.4-acre property of Mr. Mike Dick located in N½ of Section 12 in Township 18 South, Range 5 East (Assessor's Parcel 655-141-24). Mr. Dick found on his property .30-caliber bullets, .50-caliber bullets, and shrapnel from some kind of mortar round or rocket estimated to be 80mm in size. Also on his property was an approximately 1.5-foot square steel plate anchored to the ground. Mr. Dick said that there was a pulley attached to the center of the plate which is now lost. He thought the plate may have been part of some sort of moving target system.

PROJECT ELIGIBILITY: The Army controlled the site from 1941 to 1950. Any ordnance found may be the result of past DOD activity.

POLICY CONSIDERATIONS: No policy considerations are known to exist that would affect proposal of this project.

PROPOSED PROJECT: Recommend the Corp's Huntsville Engineering and Support Center make a determination if further action is appropriate.

RAC FORM: Attached.

DISTRICT POC: Request CEHND inform Mr. Jeffery B. Armentrout at (213) 452-3720 when a determination is made regarding project status.

18 Apr 94
Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name Camp Lockett
Site Location CAMBO, California
DERP Project # J09CA707801
Date Completed 25 September 1998

Rater's Name Steve Cameron, SAIC
Phone No. (619) 458-2631
Organization Los Angeles District
RAC Score 1, Recommend 3

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OEW risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OEW hazards identified at the site. The risk assessment is composed of two factors, hazard severity and hazard probability. Personnel involved in visits to potential OEW sites should view the CEHND videotape entitled "A Life Threatening Encounter: OEW."

Part I. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPE OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	(10)
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	(10)
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	(1)
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OEW? Historical accounts documented by James Hinds, Military Historian, in addition to observation of bullets and shrapnel from some kind of mortar round or rocket.

B. Pyrotechnics (For munitions not described above.)

	VALUE
Munition (Container) Containing White Phosphorus (WP) or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing A Flame or Incendiary Material (i.e., Napalm, Triethylaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smokes (other than WP)	4

Pyrotechnics (Select the largest single value) 0

What evidence do you have regarding pyrotechnics? _____

C. Bulk High Explosives (Not an integral part of conventional ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosives (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Compositions A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.)	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc.)	3

High Explosives (Select the largest single value) 0

What evidence do you have regarding bulk explosives? _____

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6

Propellants 0

What evidence do you have regarding bulk propellants? _____

E. Chemical Warfare Materiel and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control Agents (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	0

What evidence do you have of chemical/radiological OEW? _____

TOTAL HAZARD SEVERITY VALUE
(Sum of Largest Values for A through E--Maximum of 61) 10
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

* Apply Hazard Severity Category to Table 3.

**If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC Score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other rated factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	(5)
Within Tanks, Pipes, Vessels or Other confined locations.	4
Inside walls, ceilings, or other parts of Buildings or Structures.	3
Subsurface	2

Location (Select the single largest value) 5

What evidence do you have regarding location of OEW? Observation of bullets in the field and observation of bullets and shrapnel collected by a civilian on his property.

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 mile	3
1.0 mile to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 5

What are the nearest inhabited structures? Homes and county facilities, including a juvenile detention facility.

C. Numbers of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Many residential dwellings, commercial/retail facilities, and county facilities are located within 2 miles of potential OEW areas.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	(4)
Agricultural, Forestry, etc.	(3)
Detention, Correctional	(2)
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. Homes, commercial/retail, county facilities (juvenile detention facility, warehouses, etc.), and a California Division of Forestry station.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	(5)
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	(4)
A barrier, (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated site	1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 5

Describe the site accessibility. Some potential OE/UXO sites are protected by "No Trespassing" signs and barbed wire fences, some are remote and isolated, and some are in chaparral-covered areas.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion by beaches or streams, increasing land development that could reduce distances from the site to inhabitated areas or otherwise increase accessability.

Expected	VALUE
None Anticipated	(5)

Site Dynamics (Select largest value) 0

Describe the site dynamics. Increasing residential development is anticipated. 5

TOTAL HAZARD PROBABILITY VALUE
(Sum of Largest Values for A through F--Maximum of 30) 30
Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY

Description	Level	Hazard Probability Value
FREQUENT	(A)	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

* Apply Hazard Probability Level to Table 3.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	(1)	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.

RAC 2 High priority on completion of INPR - Recommend further action by CEHND.

RAC 3 Complete INPR - Recommend further action by CEHND.

RAC 4 Complete INPR - Recommend further action by CEHND.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that supports this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

See attached justification.

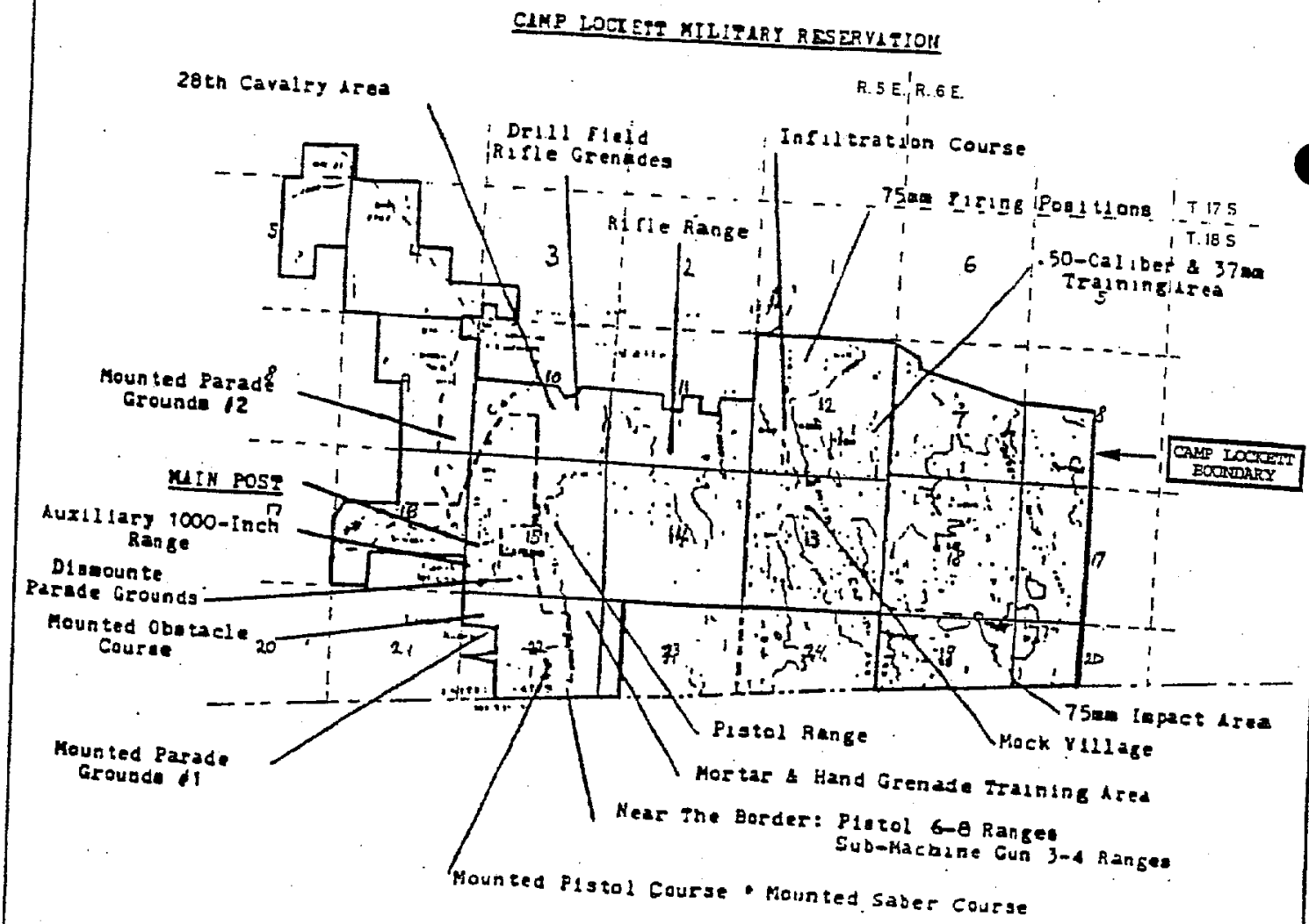
RISK ASSESSMENT PROCEDURES FOR ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES FOR DERP-FUDS SITE NO. J09CA707800 DERP-FUDS OEW PROJECT NO. J09CA707801 CAMP LOCKETT CAMPO, CALIFORNIA

JUSTIFICATION

Camp Lockett consists of 7,111.748 acres. Primary owners of the property include private parties, the Department of Interior, and the County of San Diego. The Camp Lockett boundary contains the town of Campo and is adjacent to the community of Cameron Corners. These are rural communities with small retail areas, and some community and governmental facilities. Numerous residential dwellings are located on the property. Highway 94 and Buckman Springs Road are the primary thoroughfares which cross the site. Numerous dirt roads, many unmarked, crisscross the areas outside of the Cameron Corners and Campo town sites. Much of the property within the Camp Lockett boundary is rugged, chaparral-covered, and isolated. Although individual residential dwellings are frequently located in these isolated areas.

The Army used the weapons training areas and ranges on the site in the 1940s. Historical accounts indicate that the following arms were used at Camp Lockett: pistols, rifles, .22-caliber weapons, .30-caliber weapons, .50-caliber weapons, hand grenades, rifle grenades, sub-machine guns, mortar, 37mm weapons, and 75mm weapons. Observed behind the target pit of a rifle range were .30-caliber bullets. A civilian who had cleared some of his land in recent years retrieved .30-caliber and .50-caliber bullets, and shrapnel from what was believed to have been a mortar round or some sort of rocket. The area is increasingly being developed with rural residential dwellings and most inhabitants of the area are aware of the former Army presence. It is expected that most of the site has been explored by civilians for various reasons, or by U.S. Border Patrol agents seeking illegal Mexican immigrants. County Sheriff, Jaque Ogle, has had no reports of people having encountered live military ammunition.

An OEW risk assessment score of one has been calculated, based on a Hazard Severity value of 10 (Critical), and a Hazard Probability value of 30 (Frequent). The RAC score of one dictates an expedited INPR and an immediate call to CEHND-ED-SY. However, the findings do not appear to present a significant, immediate risk, although some potential exists for the presence of ordnance or explosive waste. Therefore, a RAC score of three seems more appropriate, indicating that the potential threat to personnel be evaluated.



Reference: Inset Showing Weapons Use Areas, From Drawing by James W. Hinds, Camp Lockett, Campo, California, 1985, Revised 1992.

N

Scale

0 MILE

Science Applications International Corporation
An Employee-Owned Company

OEW PROJECT MAP
CAMP LOCKETT
J09CA707801
Campo, CA

PROJECT NO.		
01-0255-04-7093		
DRAWN BY	CHECKED BY	DATE
SC	EB	9-98

PROJECT SUMMARY SHEET
FOR
DERP-FUDS CON/HTRW PROJECT NO. J09CA707802
CAMP LOCKETT
SITE NO. J09CA707800
25 September 1998

PROJECT DESCRIPTION: Two 5,000-gallon gasoline underground storage tanks (USTs) are identified on an as-built drawing to be located 25 feet north of the northwest corner of former Building 534 (also known as Building 505). The foundation of Building 534 is located about 200 feet east of the intersection of Forrest Gate Road and JEB Stuart Road. Of note is that these two tanks may be in the plume of contaminated groundwater associated with the nearby U.S. Border Patrol Station. Two 2,000-gallon gasoline tanks installed at the Border Patrol Station by the Immigration and Naturalization Service (INS) many years ago were removed in 1993. Contaminated soil was removed and monitoring wells were installed, one of which is located near the foundation of Building 534. Groundwater was encountered at a depth of 4 to 5 feet below grade and was flowing in a northwesterly direction. Elevated concentrations of benzene, toluene, ethylbenzene, and xylene were detected in the monitoring wells. A July 1994 report indicated that well samples contained up to 72 mg/l of TPH (total petroleum hydrocarbons), 22,000 ug/l of aromatic hydrocarbons, and 7 ug/l of total lead. Groundwater monitoring is ongoing.

One 550-gallon oil UST is identified on an as-built drawing to be located within about two feet of the north end of existing Building 515. This tank supplied fuel to an oil-burning furnace. Although the furnace has been removed from Building 515, the UST may still be in place.

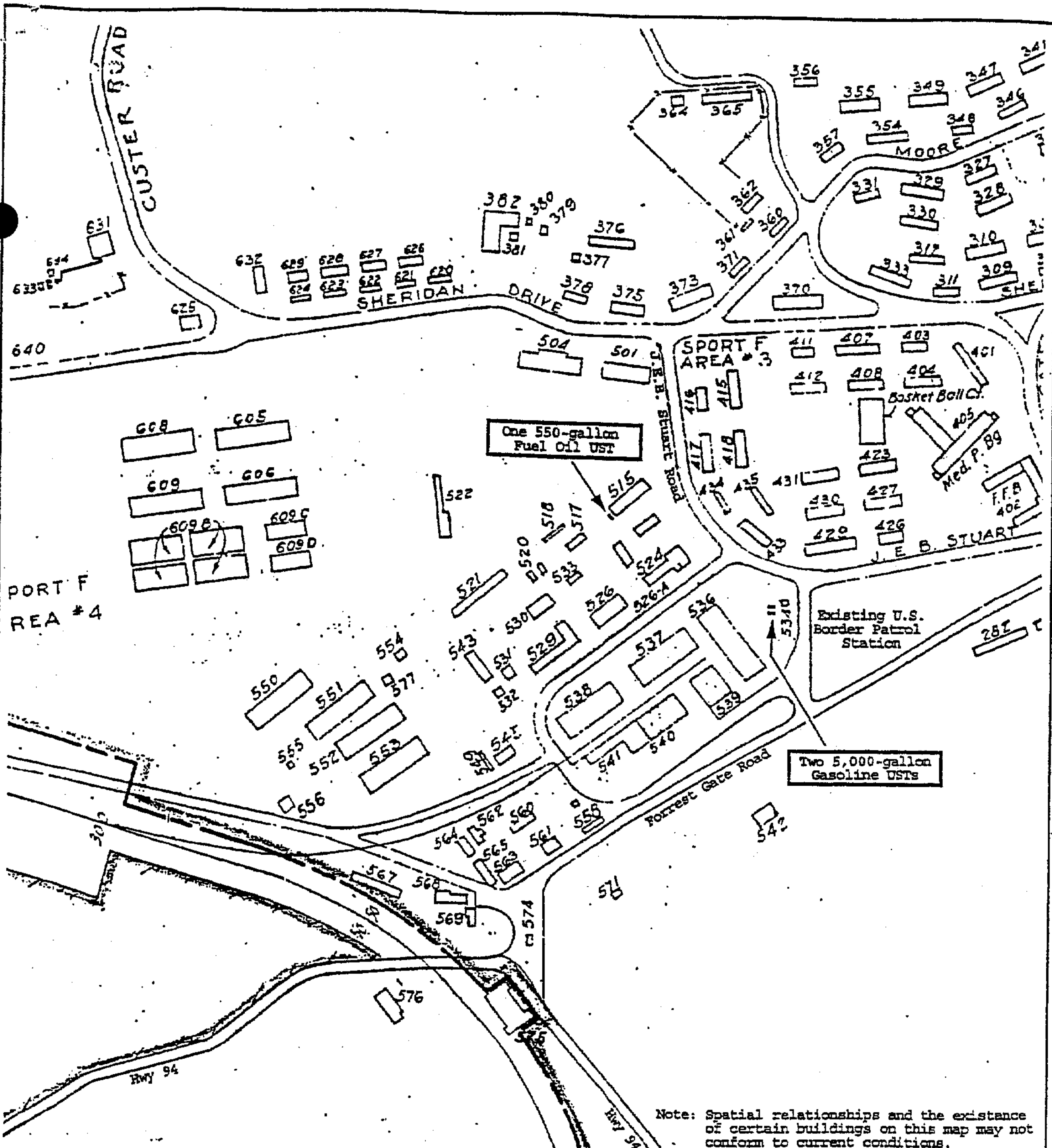
PROJECT ELIGIBILITY: The Army controlled the site from 1941 to 1950. Drawings indicate that DOD installed two USTs at Building 534 and one UST at Building 515.

POLICY CONSIDERATIONS: The County of San Diego acquired Building 534 and associated property in 1950. The Mountain Empire High School District acquired Building 515 and associated property in 1949 which was subsequently transferred to the County of San Diego. No information was available to substantiate that these USTs were used beneficially following disposal by DOD or that they were removed by the county. No other policy considerations are known to affect proposal of this project.

PROPOSED PROJECT: Conduct geophysical surveys to determine whether three USTs and associated piping are present. If USTs are found to be present at the site, remove and dispose of detected tanks and piping. Sample soils in the vicinity of the removed tanks and backfill the excavation to grade.

DD FORM 1391: Attached.

DISTRICT POC: Jeffery B. Armentrout, Los Angeles District, (213) 452-3720.



Reference: Los Angeles District Engineer, CAMP LOCKETT (MITCHELL CONVALESCENT HOSPITAL), LAYOUT PLAN, 3 April 1946.

Science Applications International Corporation
An Employee-Owned Company

CON/HTRW PROJECT MAP
CAMP LOCKETT
J09CA707802
Campo, CA

PROJECT NO.	01-0255-04-7093	
DRAWN BY	CHECKED BY	DATE
SC	EB	9-98

APPENDIX E

LETTERS/MEMORANDA/ MISCELLANEOUS ITEMS

APPENDIX E

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

E-1 Mochau, M.F., COL, AGD

1946 Military Memorandum with Supplemental Instructions, from the Office of The Commanding General, 9th Service Command, to the Commanding Officer of the Mitchell Convalescent Hospital, signed by Colonel M.F. Mochau, Adjutant General, by Command of Major General Shedd, Commanding General of the 9th Service Command, dated 16 February 1946, Subject: Disposition of Mitchell Convalescent Hospital, Camp Lockett, CA; RG 160, Entry 27, Box 50, Folder: Camp Lockett; Archives II, College Park, MD.

C 1B

ARMY SERVICE FORCES
Office of the Commanding General, Ninth Service Command
Fort Douglas, Utah

602 SPRVO 16 February 1946

SUBJECT: Disposition of Mitchell Convalescent Hospital, Camp Lockett, California.

TO: Commanding Officer
Mitchell Convalescent Hospital
Camp Lockett, California

1. The Mitchell Convalescent Hospital, Camp Lockett, California, will cease operation as a general hospital effective 31 March 1946.

2. It is desired that you take the necessary action to complete all closing out activities (closing of accounts, disposal of personnel, property, premises and records) and transfer your installation to the Division Engineer, Pacific Division, San Francisco, California or his representative on 15 May 1946.

3. In this connection, your attention is directed to letter, this headquarters, 602 SPRVO, 11 January 1946, subject: "Post Steering Committee for Change of Installation Status." In addition to the action to be taken as directed in ASF Manual, M-706, there is furnished as Inclosure No. 1 hereto, Supplemental Instructions for your necessary action and guidance.

4. If any instructions contained herein are not understood, or if prompt disposition is not given, this headquarters, attention: Plans and Operations Division (SPRVO), will be notified with the least practicable delay.

5. There are inclosed fifty (50) copies of WD AGO Form R-5035. It is desired that the following action be taken with regard to these forms:

a. Four (4) copies will be made out as of 2400, Friday of each week and mailed so as to reach this headquarters, attention: Plans and Operations Division, on the following Monday.

b. The column headed "Estimated Date of Completion" will be divided into two (2) columns, one of which will indicate the estimated date of completion for each item and the other will indicate the percentage of completion for each item as of 2400, Friday of each week, sample inclosed.

Ltr, HNSC, 602 SPRVO, 16 February 1946, Subj: Disposition of Mitchell Convalescent Hospital, Camp Lockett, California

c. The form will be forwarded with a letter of transmittal covering other pertinent facts.

BY COMMAND OF MAJOR GENERAL SHEDD:

M. F. Mochau

M. F. MOCHAU
Colonel, AGD
Adjutant General

3 Incls:
Incl 1 - Supplemental Instructions
Incl 2 - WD AGO Form R-5035
(50 copies)
Incl 3 - Sample Copy Form R-5035

DISTRIBUTION:
"A"
Div Engr, Pac Div (2)
Dist Engrs (5 ea)
C/Engrs, Wash (2)
The Surg Gen, Wash (2)
ServC Sig O, Pres of SF (2)
CG, ASF (Attn: Mob Div)
Utah ASF Dep
Seattle ASF Dep
LAPOE, Calif
CO, SF Med Depot
Los Angeles Med Depot
Seattle Med Dep
NSC Records Dep, Ogden
Tooele Ord Dep, Utah
Ogden Arsenal, Ogden, Utah
Fort Rosecrans, Calif.
Custodian, Cent Hosp Fund, USA, Wash.
CO, Fort MacArthur, Calif
Fort Douglas, Utah
1909 SCU, Southern Dist
Pasadena Reg Sta Hosp, Calif
QM Regional Depot
Dist Auditor, 824 So Western Ave, LA, Calif.

SUPPLEMENTAL INSTRUCTIONS

SECTION I

PERSONNEL

1. Enlisted Personnel

a. Enlisted personnel eligible for and desiring separation, including those eligible under letter of this headquarters, file SPRPM, subject: "Separation of Military Personnel Under 13 January 1946 Criteria," dated 18 January 1946, will be processed for separation in accordance with current directives.

b. Enlisted personnel eligible for overseas service will be transferred direct to the nearest appropriate ASFTC, in accordance with paragraph 19a, ASF Circular 408, 31 October 1945, citing that directive as authority for transfer.

c. Enlisted personnel not eligible for separation and not eligible for overseas service will be reported to this headquarters, attention SPRPE, at once, indicating dates of availability on NSC Availability Report Form LR-2018, in accordance with Section VIII, HNSC Circular 207, 1945.

d. Garrison prisoners will be disposed of under the provisions of HNSC Circular 7, 1946. Any prisoners whose disposition cannot be made under the policies expressed in this circular will be reported to this headquarters, attention SPRVD, for disposition.

e. Upon disposition of all enlisted personnel, a final report will be submitted to this headquarters, attention SPRPE, indicating the following:

(1) The total number processed for separation.

(2) The total number qualified for overseas and processed in accordance with paragraph b, above.

(3) The total number reported for reassignment whose transfer has been accomplished, in accordance with paragraph c, above.

(4) The total number of miscellaneous personnel, including garrison prisoners; those in an AWOL status; absent sick in hospital; and any others for whom disposition has not been accomplished prior to date of inactivation.

2. Officer Personnel

a. A report will be submitted to this headquarters, attention SPRPO, showing the date commissioned and warrant officer personnel will be available for reassignment. Those eligible for separation prior to 30 June 1946 will be ordered to the appropriate separation center. Request for

III (Cont'd)

of Engineers, "Last minute" excesses, if any, which develop incident to the retention of limited stocks as discussed above, will be definitely cleared from the station prior to the date that the installation is to be returned over to the Chief of Engineers.

(f) Requisitions and "dues-in", with reference to which action is pending, will be checked and cancelled where appropriate.

(3) Surplus property will be declared to disposal agencies and retained at the station under the accountability of the station surplus property officer in accordance with the provisions of WD Circular 34, 1946.

(4) Technical service property, except as may be otherwise specifically directed will be disposed of in accordance with the provisions of ASF Manual M-419, 1945, and of other current directives.

5. Ordnance

a. Shop tools and equipment will be reported to the Tooele Ordnance Depot, Tooele, Utah

b. Vehicles will be disposed of in accordance with Section IV, HNSC Circular 15, 23 January 1946.

c. Ammunition, tires, tubes and flaps will be shipped to Camp Haan.

d. All other serviceable Ordnance supplies will be disposed of in accordance with Paragraph 11, Section III, ASF Manual M-419.

e. Unserviceable Ordnance supplies, not covered above, will be disposed of in accordance with Part Three, HNSC Circular 213, 7 December 1945, as amended by Section VII, HNSC Circular 13, 1946.

6. Property Disposal

a. Salvage - All salvage and small lots of surplus property will continue to be physically transferred to Fort Rosecrans for disposition.

Surplus - Such surplus property that may accumulate will be declared and stored pending disposition instructions from disposal agency. The Surplus Property Officer will remain at Mitchell General Hospital until final disposition.

7. Chemical Warfare

a. Chemical Warfare supplies and equipment, except grenades furnished under provisions of letter, SPSC 471.1, HNSC, 5 April 45 (receipt for which is signed by Donnell Greely, Maj., Inf.), will be turned in to the Chemical Warfare Property Officer, Fort Rosecrans, California. Disposition of the grenades will be furnished in a separate letter.

APPENDIX F

REAL ESTATE DOCUMENTS

(NOT USED)

APPENDIX G

NEWSPAPER/JOURNALS

NEWSPAPER/JOURNALS

G-1 Hinds, James
1985 Historical Narrative, entitled *"The Camp Lockett Military Reservation, Campo, California, 1941-1946"*, a revision dated 1985, authored by James W. Hinds; Mountain Empire Historical Society, Campo, CA.

G-2 Hinds, James
1990 Article, entitled *"Training Facilities Formed An Integral Part of Camp Lockett Military Reservation"*, originally appeared in the November-December 1990 Issue of the Camp Lockett News, reprinted in Volume 9, Number 1, Fall 1994 Issue, with an additional reprint in Volume II, 1996, from Narrative entitled *"Military Presence in the San Diego Backcountry"*; Camp Lockett News, Campo, CA; Mountain Empire Historical Society, Campo, CA.

APPENDIX G-1

Historical Narrative, entitled *"The Camp Lockett Military Reservation, Campo, California, 1941-1946"*, a revision dated 1985, authored by James W. Hinds; Mountain Empire Historical Society, Campo, CA.

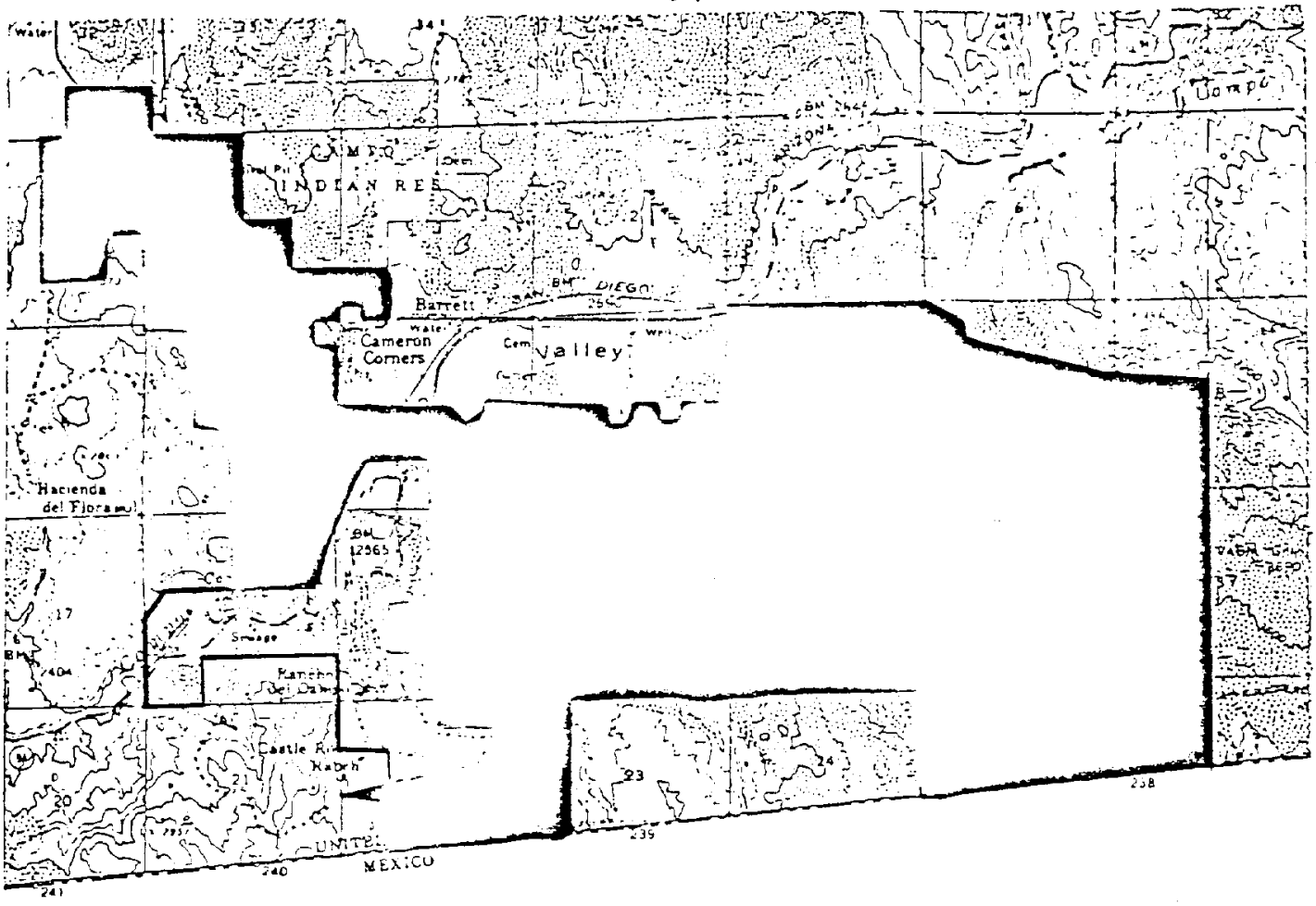
THE CAMP LOCKETT MILITARY RESERVATION

Campo, California
1941-1946

by

James W. Hinds
Revised 1985

ORIGINAL CAMP LOCKETT BOUNDARY
1941



Subsequent land acquisitions, leases and permits

In the Spring of 1941 the United States Army entered into leases with Ellsworth M. Statler on April 15, 1941 for his portion of the town of Campo which consisted of 510 acres and F.J. & Isabelle M. Ferguson on [illegible] Ranch which consisted of 161.41 acres. In addition the Army leased a little over 32 acres from various small property owners at Campo. The leases were for a period of one year, with the right to renew, and or purchase, until June 1966. In total the Army had acquired 702.436 acres of land for its new cavalry camp. The final act of acquiring ownership of this land was accomplished in late 1942 by two Declarations of Taking, one filed November 30, 1942 and the other on December 23, 1942. This was the only land within the Camp Lockett Military Reservation which the War Department owned.

Inception And Construction

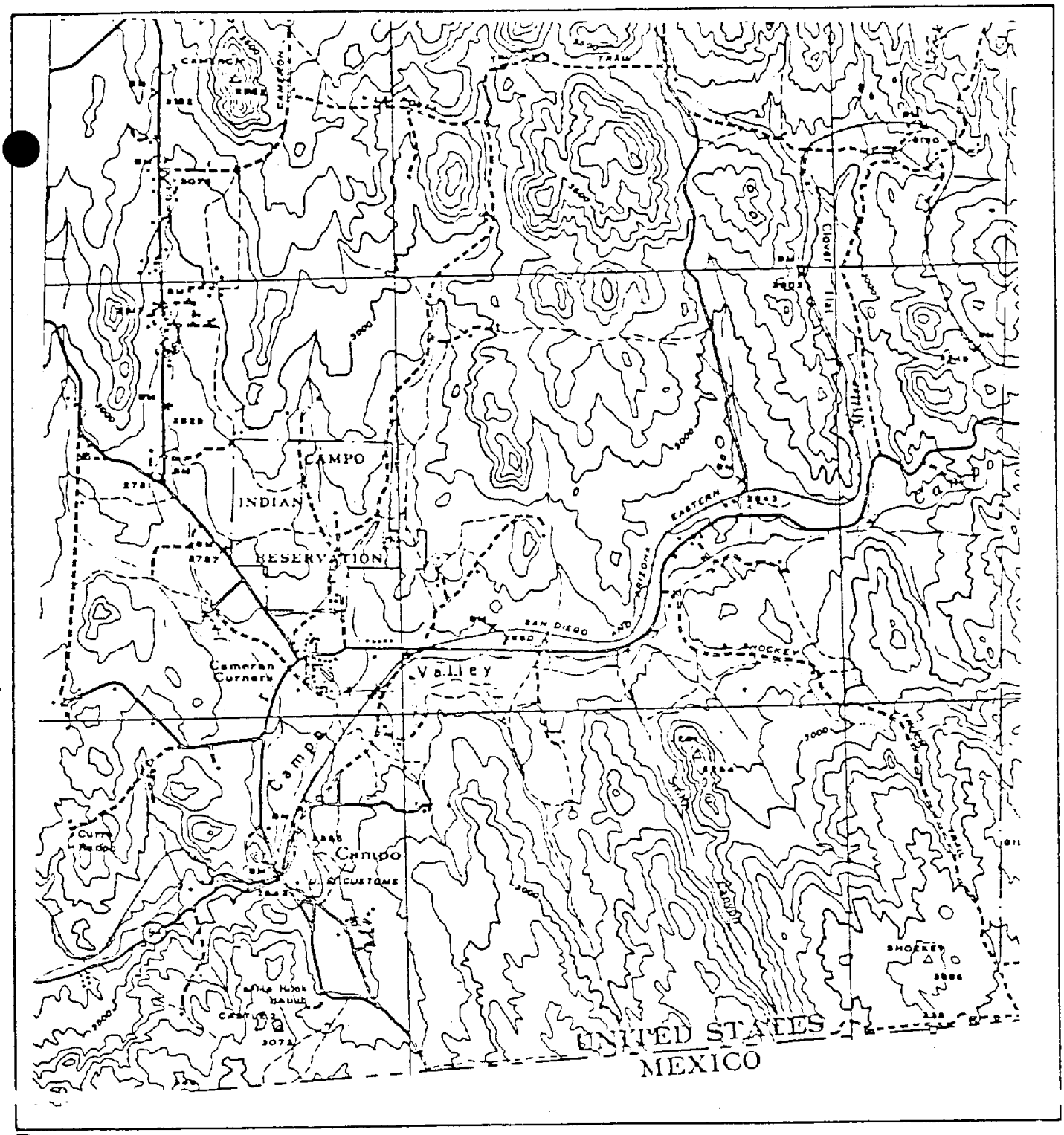
The Army's decision to build a cavalry camp at Campo was due to the decision of the United States following the fall of France to begin mobilization. There was a need in mid-1940 for the United States to secure its frontiers from foreign aggression and the border between the United States and Mexico was one of these frontiers. Geographically Campo came under the Army's 9th Corps Area, a broad command covering the western United States. The clouds of war descending over the United States had no effect upon the tranquil Campo Valley at this time. This region of rural southeastern San Diego County was a cattle ranching, dairy farming, and agricultural area.

But the United States Army and Campo were not strangers to each other. In the thirteen years preceeding the American Civil War the Army had first operated a mule mail service through the Campo Valley in 1848 and a pack train route for the resupply of Fort Yuma was started in 1853 with an Army camp at Jacumba. The latter route had been optimistically layed out as a wagon route in 1851 by Captain Nathaniel Lyon's who's lasting fame came a decade later at Wilson's Creek, Missouri when he became the first Union general to be killed in the Civil War. Following the Civil War southeastern San Diego County was settled and in 1873 the Army's telegraph between San Diego and Fort Yuma passed through Campo. But it was not until 1875 that the Army was called upon to send troops to protect citizens of Campo following a bloody raid by Mexican bandits on December 5, 1875.

In response Company G, 1st United States Cavalry had been dispatched to San Diego where its commander Captain Reuben F. Bernard[1] reactivated the San Diego Barracks on January 2, 1876. On January 11, 1876 First Lieutenant John P. Story[2], 4th United States Artillery, led a vanguard force of 11 cavalrymen to Campo. The arrival of United States troops brought with it a corresponding return to normal to the border that would last for thirty-five years. Then in 1911 with Mexico in revolution the United States Army was ordered onto the Mexican border and troops were again sent to Campo as well as to Dulzura and Tecate where camps were also established. Following a short stay these troops were withdrawn but in 1914 troops were again sent to Tecate where Troop M, 1st Cavalry was stationed until 1917. Then during World War I Troop E, 11th United States Cavalry was stationed at Campo and the regiment maintained troops there until the early 1920's.

Strategically Campo with its Customs House lies 1.3 miles north of the Mexican Border on the San Diego & Arizona Eastern Railroad line 56 miles southeast of San Diego. [illegible] San Diego's only direct link with the east and had been completed in 1919. And the San Diego & Arizona Eastern Railroad is a international railroad by the time it reaches Campo because it covers 44 miles of Mexico before reentering the United States 4 miles southwest of Campo. Also in close proximity to Campo are the Barrett and Morena Reservoirs which supplied water to the city of San Diego and its then expanding military and defense complex.

The initial inspection of the site was conducted by Lieutenant General John L. DeWitt, Commanding General, 9th Corps Area and

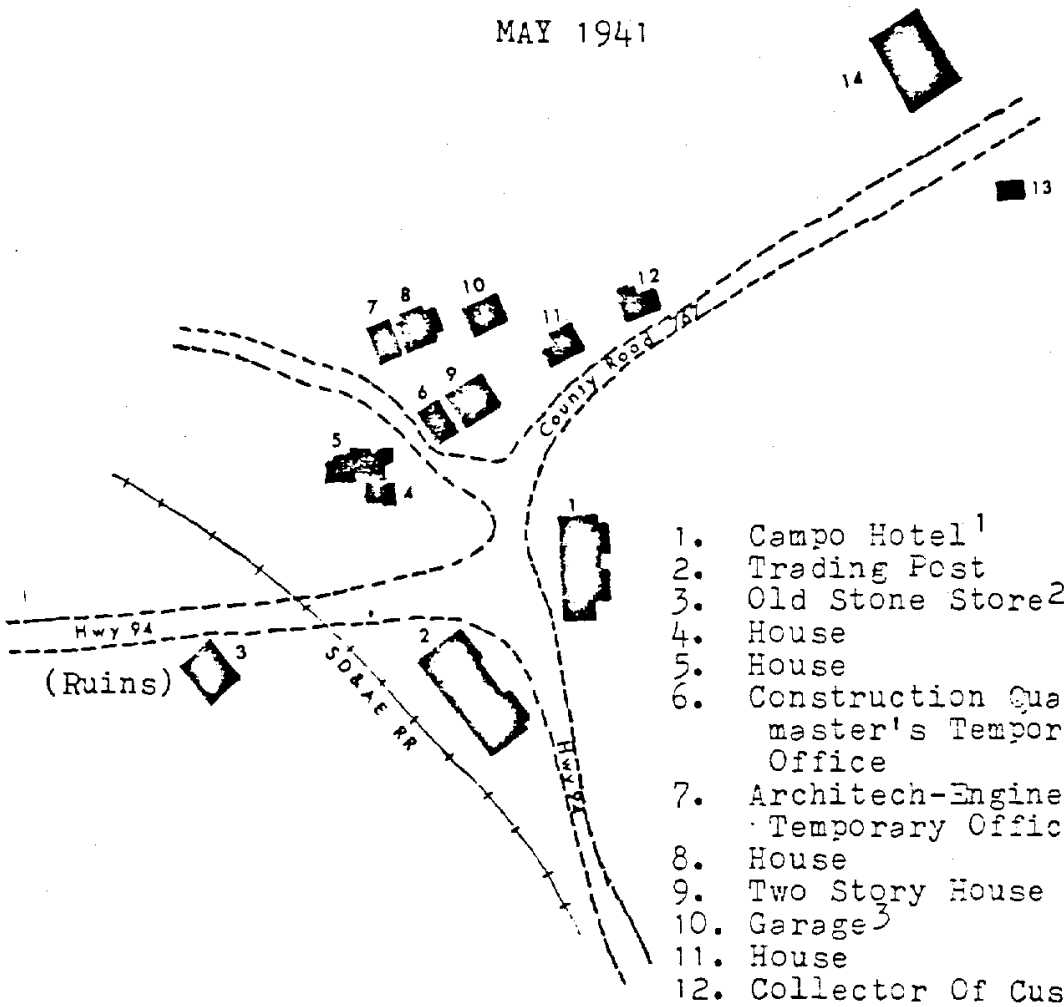


(San Diego Historical Society Library And Manuscripts Collection)

The Campo area as it appeared in 1939 and depicted on a Campo Quadrangle, 15 Minute Series Map, 1944 edition.

CAMPO, CALIFORNIA

MAY 1941



1. Campo Hotel[1]
2. Trading Post
3. Old Stone Store[2]
4. House
5. House
6. Construction Quartermaster's Temporary Office
7. Architech-Engineer's Temporary Office
8. House
9. Two Story House
10. Garage[3]
11. House
12. Collector Of Customs House
13. House
14. Barn

Personnel of the Constructing Quartermaster and Kistner, Curtis & Wright, the project Architech-Engineer, arrived in Campo in early May of 1941 and commenced their work on Camp Lockett. They [illegible] and constructed two temporary offices for their work. The Trading Post was an exception and was excluded from the lease the Army had signed with Ellsworth M. Statler on April 15, 1941.

1. Burned down on the night of May 28-29, 1944.
2. Built in 1885 the Gaskill Brother's Stone Store was restored by the County Board of Supervisors from 1943 through 1948.
3. Torn down by the Army in 1943.

4th Army, both of which were headquartered at the Presido of San Francisco3. At this time the Army's Corps Areas were responsible for camp construction and their subsequent operation. The Army's interest lay in approximately 702.436 acres (henceforth rounded to 702 acres only) of land that included the townsite and extended along the eastern slope of the Campo Valley and was a portion of the former El Rancho Del Campo cattle ranch. In August of 1911 Campo had been subdivided by Edwin and Maria Aiken with 42.002 acres of land comprising their subdivision. Though in the ensuing twenty-nine years no streets had been layed out or no utilities built. Since 1938 Ellsworth M. Statler had owned almost all of the town of Campo. In that year Statler had purchased 1600 acres of land that included the townsite of Campo and the hotel which was within the subdivision plus two large ranches. To the southeast of the town lay the 163.51 acre Circle S Ranch owned by F.J. Ferguson and his wife Isabell which the Army also wanted.

The new camp was to be constructed for the Army's 11th Cavalry Regiment then in garrison at the Presido of Monterey. To insure an adequate water supply for its future cavalry camp the Army requested to draw water from San Diego's Morena Reservoir which was 7 miles northwest of the site. On October 5, 1940 the San Diego City Council approved the Army's request and the following day Mr. Fred Pyle, San Diego's Hydraullic Engineer was quoted by the San Diego Union newspaper as indicating that work on the new camp was suppose to start the following month, November 19404. But that statement proved to be overly optimistical because it would be six more months before the Army would gain title to the property and eight months before actual construction would start. During November 1940 the 11th Cavalry was ordered south. The 690 man regiment was to be stationed at a temporary cavalry camp located at Seeley in the Imperial Valley of Southern California. Due to a reorganization within the Army command over the regiment had passed to 4th Army.

The winter of 1941 passed without progress being made on the camps construction. Some how the urgency following the fall of France in June and the crisis that had followed had failed to translate into tangible results during the winter! For it was not until April 15, 1941 that the Army signed its lease with Ellsworth M. Statler for 510 acres of his land followed by a lease for the Circle S. Ranch on June 18 with the Ferguson's. Also the Army signed leases with the smaller land owners at Campo. Excluding monetary consideration the leases were for a period of one year with the right of renewal or purchase until June of 19665.

Meanwhile on April 8 Kistner, Curtis and Wright of Los Angeles had signed a contract with the Army for their company to become the project Architect-Engineer. Construction of the new camp was to be under the authority of the 7070 Series of Construction Authorizations, by direction of the Construction Division, Office of the Quartermaster General. With over all direction and supervision of the camps construction by a local Constructing Quartermaster representing the Quartermaster General through the Zone Constructing Quartermaster, Zone IX. Kistner, Curtis and Wright's contract specified that they would start work by April 14, 1941. On April 12 the War Department assigned Captain

Water Allotted To Cavalry Camp

Clearing the way for establishment of a cavalry cantonment near the Mexican border, the city council yesterday approved an application from the federal government for permission to take water from Morena reservoir.

By resolution, it was stipulated that expense of installing and operating the necessary pipe line, meter, pumps and treatment facilities shall be borne by the government, which is to pay the same rate for the water as do other local governmental agencies.

It also was emphasized that establishment of the cantonment "will afford a valuable protection" to the reservoir. Work on the camp, according to Fred Pyle, city hydraulic engineer, is to be started next month, and provision is to be made for 500 men and horses.

October 6, 1940

11th Cavalry on Way To S.D., Valley Camps

For the first time in more than 20 years, United States army cavalry was missing today from the Presidio of Monterey as 450 officers and men and 730 horses of the 11th cavalry entrained there last night for new permanent stations in San Diego and Imperial counties, The Associated Press reported. In San Diego county the cavalry camp will be located between Campo and Morena reservoir. The Imperial county camp is at Seeley. Both stations are near the Mexican border.

November 16, 1940

(San Diego Historical Society Library And Manuscripts Collection)

Marion C. Tadlock as the projects Constructing Quartermaster.

Initially Kistner, Curtis and Wright established a temporary office in their San Diego offices where they held conferences with Captain Tadlock. Because of extensive defense construction underway in San Diego the company was forced to recruit its key personnel, engineers and inspectors from the Los Angeles area. See Appendix A for a complete listing of the Architect-Engineer's personnel. While the Constructing Quartermaster's personnel were being selected from applicants from Los Angeles and San Diego and appointed to their positions under civil service rules. See Appendix B for a complete listing of the Constructing Quartermaster's personnel.

Up to May of 1941 no construction activity had taken place at Campo. But on May 5 the Constructing Quartermaster and Kistner, Curtis and Wright established a field office out at Campo and immediately began work on the camps design. As a result of the initial site inspection in 1940 a decision based on General DeWitt's recommendation had been made for the utilization of existing Campo buildings so no provisions were made for the construction of a regimental headquarters, post exchange, recreation building or regimental commanders quarters. When the Army leased the land during the spring there were already eleven buildings on the land and office of the Quartermaster General had been specifically

directed not to duplicate existing buildings6.

Field work progressed rapidly at Campo and in just three weeks from the opening of their field office bids for the construction of the cantonment area was announced. Camp Lockett as the new camp had been named would be built utilizing mobilization type construction. With bids open on June 10 the George A. Fuller Company, a Los Angeles based contractor with a nation wide operation was awarded a $1,227,700.00 construction contract. See Appendix C for the organization of the contractors. Then on June 18 bids for the construction of the camps sewage disposal plant, incinderator, and water supply tanks were called for. On June 30 Harry Friedman who was doing business as The Contracting Engineers Company was awarded a $148,000.00 contract for this work. The Contracting Engineers Company was a small Los Angeles company doing work principally in the state of California. The George A. Fuller Company started work on July 1 and The Contracting Engineers Company on July 3.

Even at this early stage of construction both contractors encountered problems with the San Diego Building and Trade Council. The central issue between the Labor Council and the contractors was the issue of free room and board for the Council's members. In May when the Constructing Quartermaster and Kistner, Curtis and Wright personnel had moved up to Campo they had occupied all the available housing. And the nearest communities had only limited housing available. Short of a work stoppage the only leverage the Council had over the contractors was the withholding of men from the contractors. Then when The Contracting Engineers Company resolved its differences with the Labor Council the company none-the-less failed to receive the number of labors it required for its work.

Because of the large amount of defense construction underway in Southern California the George A. Fuller Company sent agents as far north as Santa Barbara and into bordering states to try and locate skilled labor for its work. This factor coupled with its dispute with the Labor Council translated into the fact that the company found it difficult to find a sufficent force of labor for its work.

The first major problem in construction occurred in early August when the redesign of the camps sewage disposal plant was ordered after the Zone Constructing Quartermaster in San Francisco and the California Department of Health had reviewed the plants design. At this point construction had been underway for one month and the redesign of the plant caused delays in its completion. Because of the problems with the plants design the Architect-Engineer's Sanitary Engineer [illegible] the hospital was forty percent complete the Surgeon General ordered changes in all of the hospital buildings except the administration building, doctors quarters and nurses quarters. Because of the point that had been reached in construction an additional six weeks were required for the redesign of the hospital and for renogiations with the George A. Fuller Company for the additional work the changes ordered by the Surgeon General necessatated.

Still the unresolved issue of free room and board threatened construction at Camp Lockett. On July 23 the Building and Trade Council stated that the organization required free room and board

in addition to various wage rates established by the council. But, that alone was not enough to resolve the issue so on August 15 the contractors were advised that a strike had been called for August 18. Presently Captain William T. Moody the Constructing Quartermaster's Executive Officer and Chief of the Engineering Section was the Acting Constructing Quartermaster during Captain Tadlock's absence due to illness. As planned the laborers struck and brought work at Camp Lockett to a standstill. It was only a one day work stoppage but its effect was enough to get the George A. Fuller Company to resolve its lingering trouble with the Labor Council.

To expedite camp construction the George A. Fuller Company established its own saw mill and lumber yard on the camps northern boundary near the railroad siding. The buildings being built by the company were mobilization type and except for the gas station, cold storage plant and the hospitals boilder room were frame buildings set on either concrete footings or full foundations, with abestos shingles installed over wood sheathing. The twenty-eight stables being built were framed buildings with plank sidings. In light of the extent of its contract the company brought in seven sub-contractors to assist in the construction. George A. Fuller Company used these sub-contractors: J.S. Barrett of Long Beach for excavation; R.E. Hazard & Sons of San Diego for the camps roads; Arenz-Warren, Inc. of Los Angeles for painting; Earl O. Stice of Los Angeles for pluming; H.S. McClelland, Inc. of Los Angeles for heating; Owen Roofing Company of Los Angeles for roofing; H.M. Nicholson of Los Angeles for electrical.

With the housing and sewage treatment plant underway bids for the construction of the camps water supply system were called for. Ten months earlier the San Diego City Council had authorized the Army to draw water from their Morena Reservoir at the same rate as that paided by other government agencies. On September 16 The Contracting Engineers Company was awarded a $132,850.00 contract for the camps water supply system construction. The main work in this contract was the construction of a 7 mile pipe line to the Morena Reservoir and the construction of diversion facilities at the lake. The Hood Construction Company of Los Angeles was the excavation work sub-contractor on the contract.

During the summer the earlier decision to use existing buildings at Campo as part of the camp was reversed after those buildings were found to be unsuited for their intended use. So construction authorization was obtained for the construction of an administration building, post exchange, and recreation building. But even with the recommendation of Major General Ernest D. Peek the new 9th Corps Area commander approval for the construction of quarters for the regimental commander was not obtained. So the next two contracts awarded at Camp Lockett were for these previously deleted buildings. On September 20 bids were called for for the construction of a recreation building and ten company storehouses. Construction would be of mobilization design and similar in appearance to the buildings being constructed by the general contractor. On October 15 Cyril B. Bagnall who was doing business as C.B. Bagnall was awarded a $34,000.00 contract for their construction. C.B. Bagnall was a small Palos Verdes Estates

company doing business principally in the Los Angeles area. The contractor used the same plumbing, heating, electrical, and roofing sub-contractors as the general contractor did.

On October 20 bids were called for for the construction of the administration building and the post exchange. These buildings were also of the mobilization style of construction and built to similar specifications as the other buildings under construction at Camp Lockett. On October 31 The Contracting Engineers Company was awarded a $27,000.00 contract for their construction. The company used the same sub-contractors as C.B. Bagnall did. Work on these buildings started on November 4.

With construction well underway two additional contracts were let in late November. The first one was for the construction of surfaced areas for vehicle parking. R.E. Hazard & Sons was awarded a $2,413.00 contract for this work. Hazard started their work on November 24 and completed their contract on December 15. On November 29 bids were called for for the putting of concrete floors in the camps nine blacksmith shops. Bids were opened on December 8 and The Contracting Engineers Company was awarded a $3,460.00 contract for this work. The company started work on December 10 and was completed on December 18.

In addition the Constructing Quartermaster undertook two Force Account Work Projects. Captain Tadlock had resumed his duties on September 15 and under his supervision the barracading of two steel igloos for ammunition storage was undertaken from October 17 through November 30 at a cost of $3,598.00. And the construction of gravel sidewalks were undertaken from December 11 through January 12, 1942 at a cost of $1,130.55.

Construction at this time at Camp Lockett was winding down. On December 1 the George A. Fuller Company completed its contract. And The Contracting Engineers Company completed its sewage disposal plant, incinderator, and water supply tanks contract plus its water supply system contract on the same day.

When the Japanese attacked Pearl Harbor the 11th Cavalry Regiment at Seeley broke camp on December 9 and marched directly to Camp Lockett. In early November a squadron* of the regiment had moved from the regimental camp at Seeley and gone into camp at Lake Morena. Then on Thanksgiving day the squadron had moved on over to Camp Lockett. Since February 1941 the regiment had been under war time organization and under the command of the newly created Western Defense Command.

While on December 31 the C.B. Bagnall company completed its contract as did The Contracting Engineers Company who completed its final contract on that day also. In just six months the tranquil Campo valley had been [illegible]. But during the course of its construction changes in construction had added an additional $115,917.65 to the cost of the camps construction. Thus when all of the costs were added up $1,726,202.52 had been spent on Camp Lockett's construction.

* A cavalry designation equivalent to a battalion.

Expansion Era 1942-1943

With the arrival of the new year Camp Lockett was commanded by Colonel Waldron J. Cheyney former post commander at Camp Seeley. Responsibility for Camp Lockett and its operation was the responsibility of the 9th Corps Area. As post commander Colonel Cheyney was responsible to 9th Corps Area for the camps operation. While Colonel Frederick Herr commanded the 11th Cavalry Regiment and in turn was under the command of the Western Defense Command. Both senior headquarters were at the Presido of San Francisco.

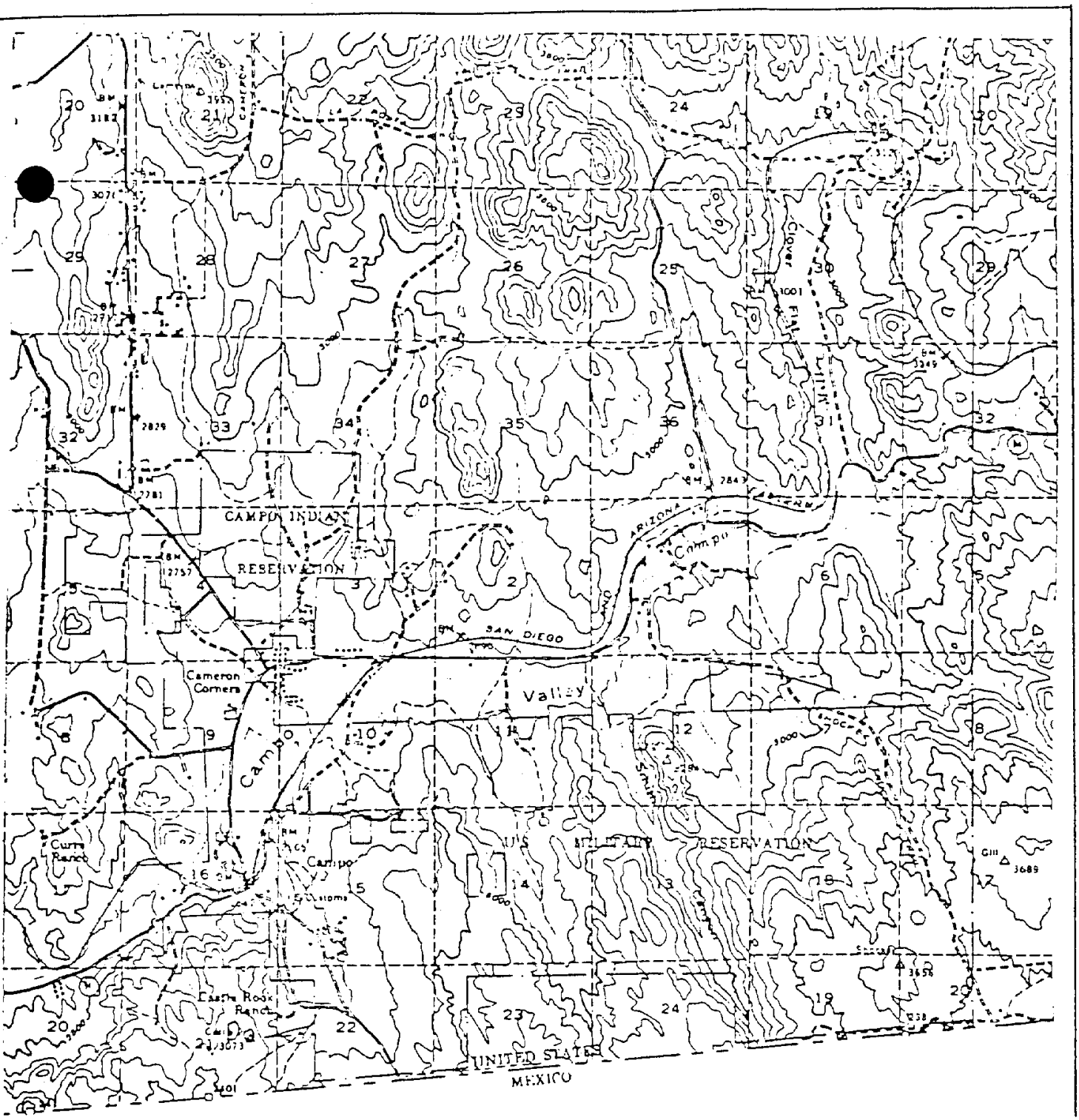
Though construction at Camp Lockett had been completed on December 30 the winter rains necessitated action and the first 1942 construction contract was for the building of drainage facilities at the camp. The J.S. Barrett Company of Long Beach was awarded a $37,834.00 contract for the construction of surface drainage facilities to divert water around the housing area and the stables[9]. The company had previously been the sub-contractor for the George A. Fuller Company's excavation work. Their surface drainage contract consisted of one main drainage ditch to divert water around the main housing area and several minor water collection ditches. In the stables area roof gutters and down spouts would be put on fourteen stables. The company work started on January 13, 1942 and was completed ten days late on March 21 because of rain.

The second contract for $13,519.00 was awarded to R.E. Hazard & Sons[10]. This contract was for the paving of Parker Road and parking areas and followed immediately the completion of the surface drainage contract. The second contract was to provide a hard surface road for truck traffic to the Quartermaster warehouses on Parker Road. As of yet the railroad spur track had not been constructed. Hazard started work on March 26 and it was accepted by the Army on May 25. In both contracts there were escalations in cost and the quoted cost is the original award price for each contract.

In total Camp Lockett consisted of 138 buildings of 38 differen types excluding those classified as utilities. For troop housing twenty-five , 63 man, two story barracks had been constructed. This gave the camp a housing capacity for 1575 enlisted men. Nine of the camps ten mess halls had a capacity for 170 men while one had a capacity for 250 men. In addition each company had a storehouse and day room. Housing for officers at Camp Lockett consisted of two two story officers quarters each with a capacity for 40 officers and their adjacent mess hall had a capacity [illegible] capacity for 7 doctors and the nurses quarters had a capacity for 10 women*. And the enlisted medical detachments quarters had a capacity for 31 enlisted men. Collectively the hospitals three wards could accomodate 87 patients.

In the lower stables area north along Sheridan Drive were

* During the cavalry era Lieutenant Johnson of the Women's Army Corps was stationed at Camp Lockett and billeted with the nurses.



(San Diego Historical Society Library And Manuscripts Collection)

The Camp Lockett Military Reservation depicted on a 1956 repl nt of a Army Corps Of Engineer's 15 Minute Series Map with a 1939 depiction of the Campo area. Note the obvious deletion of Leases 60 and 61 from the map and the absence of any depection of the Army's construction within the military reservation.

eighteen creme colored stables with a capacity for 58 horses each. Also there were six hay sheds and six blacksmith shops. In the upper stables area along Custer Road was an additional ten stables, three hay sheds and three blacksmith shops. The camps twenty-five stables could house 1624 horses.

While land had been leased in the spring of 1941 for Camp Lockett the Army proceeded to acquire more land for the new camp. Land was needed for ranges and maneuver areas. With this expansion the Camp Lockett Military Reservation acquired 2358.09 acres of public land from the Interior Department and 4047.48 acres from private land owners (leases and permits)[11]. In total the Army gained 6405.58 acres of additional land thus expanding the military reservation to 7108.016 acres. At its maximum length the military reservation stretched 5 miles east to west. And at its maximum width it stretched 4 miles but its average width was 2 1/2 miles east of Cameron Corners.

But it was the War Department's decision at mid-year that had the greatest effect on the future of the Camp Lockett Military Reservation in 1942. The 11th Cavalry Regiment was to be converted to armor and the 4th Cavalry Brigade was to remain active upon the deactivation of the 2d Cavalry Division. The transfer of the 4th Cavalry Brigade would require expansion of camp facilities. On June 28, 1942 the brigade arrived at Camp Lockett and six days later the 11th Cavalry dismounted boarded a train on July 6 for its transfer east. With this transfer the stage was set for construction that would carry on into 1943.

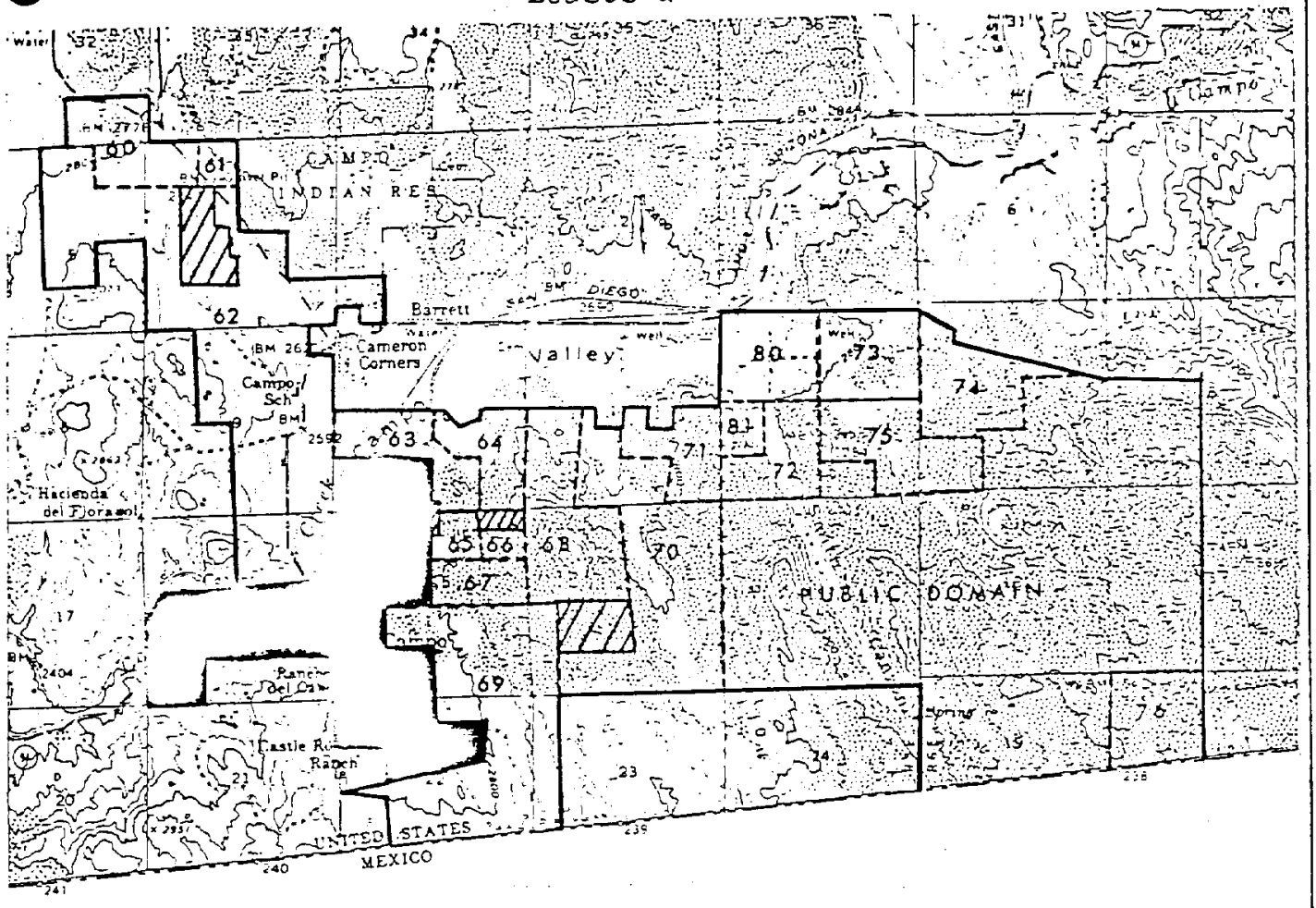
Following the arrival of the 4th Cavalry Brigade was the arrival of Headquarters & Headquarters Company, Southern Land Frontier Sector, Western Defense Command by convoy on June 30, 1942 from Phoenix, Arizona. And within seven months of the brigade's arrival a new cavalry regiment would be activated at Camp Lockett as part of the brigade. But unlike the mobilization construction for the 11th Cavalry the 1942-1943 construction was of cheap theatre of operations single story buildings. And the stables in this period were equally cheap in construction.

Brigadier General Thoburn K. Brown commanding the 4th Cavalry Brigade and the Southern Land Frontier Sector established his headquarters in the old Circle S. Ranch house. And a headquarters building for the Southern Land Frontier Sector was built as well as a company area for the Southern Land Frontier Sector on the east side of Moore Road. While officers and enlisted men of the 4th Cavalry Brigade were billeted with the 10th Cavalry Regiment. In the utilities area between J.E.B. Stuart Road and the [illegible] constructed for the 10th Cavalry Regiment and the existing one became the post motor pool. The post engineers area was expanded and four new Quartermaster warehouses were constructed and a railroad spur was ran into the Parker Road warehouses.

Because of the increased number of troops to be stationed at Camp Lockett and the corresponding disciplinary problems they would cause a post stockade was built adjacent to the original guard house. As far back as October 1941 9th Corps Area had recommended a stockade be constructed at Camp Lockett[12]. 9th Corps Area recommendation was submitted as an indorsement to a

CAMP LOCKETT MILITARY RESERVATION

Leases & Permits



Original Camp Lockett Boundary

Major Exceptions

60, lease, 150 acres, Emmett P. Franklin. 61, lease, 37.80 acres, John J. Engeln, ET., UX.. 62, lease, 1071.74 acres, Ellsworth M. Statler. 63, lease, 113 acres, Etty L. Leach. 64, lease, 117 acres, Manuel Ortega. 65, lease, 30 acres, Amos S. Akin. 66, lease, 30 acres, W.H. & F.L. Parker. 67, lease, 80 acres, [illegible]. 69, lease, 634.35 acres, Dan Danciger. 70, Solon S. Kipp, ET., UX.. 69, lease, 634.35 acres, Dan Danciger. 70, [illegible]se, 470 acres, Ed Grand, ET., UX.. 71, lease, 108.53 acres, Samuel C. Smith, ET., UX.. 72, lease, 120 acres, Benjamin A. Smith, ET., UX.. 73, lease, 160 acres, George A. Shedden. 74, lease, 170 acres, George Richard Doan. 75, lease, 160 acres, Jennie B. Price. 76, lease, 155.07 acres, Harry K. Shockey, ET., UX.. 80, permit, 160 acres, Mark A. McClelland, ET., UX.. 81, permit, 40 acres, Benjamin A. & Estelle Smith.

letter submitted by then Lieutenant Colonel Waldron J. Cheyney the post commander at Camp Seeley. As constructed the original guard house could only house 11 prisoners but the daily average of men then confined at Camp Seeley had been in excess of that number. There was no provision for housing members of the guard in the existing guard house nor was there a provision for the prisoners to wash their own cloths. With the construction of the stockade these original shortcomings had been overcome.

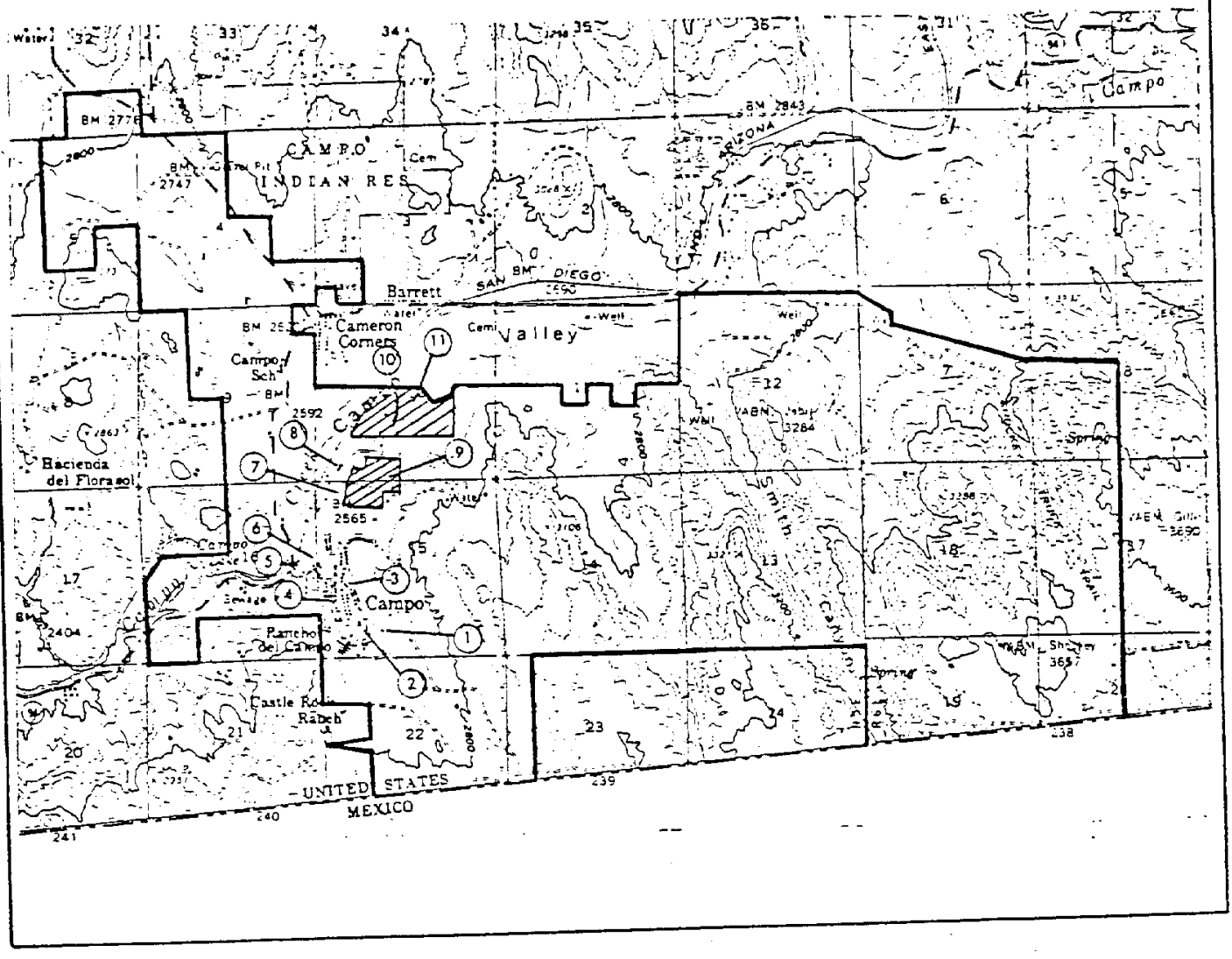
But the greatest effort in construction during the expansion period was the new 28th Cavalry area. The location selected for the new regiment was 1 mile north of the main camp on land the Army was leasing from Etty L. Leach and Manuel Ortega. All types of single story theatre of operations buildings had to be built for the regiment. While their lengths varied their widths were almost a standard twenty feet. In addition internal roads had to be constructed in the cantonment area and Sheridan Drive and Custer Road extended. From scratch a regimental headquarters, squadron headquarters, officers quarters, officers mess, post exchange, infirmary, chapel, motor pool, gas station, and fire station had to be built. And for the nine troops in the regiment troop barracks, mess halls, latrines, company administration and supply houses had to be built. And for recreation a 361,000 gallon swimming pool was built.

The twenty-four 28th Cavalry Regiment stables extended northward along Custer Road from the former 11th Cavalry Regiment stables which the 10th Cavalry was using north past Dodd Road to its junction with Sheridan Drive. Because the 28th Cavalry was a smaller regiment than the 10th only twenty-four olive drab painted stables were built. Three hay sheds were clustered together on the north side of the stables area and the regiment had only seven blacksmith shops. In total 136 structures were constructed for the 28th Cavalry Regiment.

Exactly how much money the Army spent directly on the 28th Cavalry Regiment was not determined during my research. But the Declaration of Surplus Property filed on June 19, 1946 for the Mitchell Convalescent Hospital indicated that there was $445,699.00 worth of buildings and miscelaneous structures plus $196,364.00 worth of utilities and miscelaneous facilities on leased land. As the majority of the construction on leased land was done on land the Army leased from Etty L. Leach, Manuel Ortega, and to a lesser degree Ellsworth N. Statler these figures should be a good indication of the money spent by the Army in the troop housing area. But the swimming pool, and the stables area was on government owned land and their value were not determined from

Back in the main part of the camp an nco club was built while the officers used the old Campo Hotel for their club. And a 175,000 gallon swimming pool was also constructed. There was interest on the part of the Army in having the Old Stone Store built in 1885 restored so that it could be used as an nco club but that desire was never realized and throughout the entire time that the Army was at Camp Lockett the Old Stone Store was not used by the Army. The officers and enlisted men of the 28th Cavalry Regiment used the recreational facilities on main post on their off duty time. In addition civilian war housing for 30 families

1942-1943 Expansion



Locations

1. General Brown's Headquarters and the 4th Cavalry Brigade Headquarters were in the Circle S Ranch House.
2. Headquarters, Southern Land Frontier Sector and Headquarters Company, Southern Land Frontier Sector.
3. Post stockade.
4. 10th Cavalry Regiment Headquarters.
5. Post Headquarters.
6. Four new Quartermaster warehouses.
7. Merritt Bowl
8. Field House
9. 28th Cavalry Regiment stables area.
10. 28th Cavalry Regiment Headquarters.
11. 28th Cavalry Regiment area.

RESTORATION OF OLD STORE AT CAMPO URGED ON COUNTY

The old stone store at Campo—an historic landmark in 1870—may be acquired by the county, restored, and made available to Camp Lockett's nocommissioned officers for a clubhouse.

A. B. Mayrhofer, representing the California Historical association, and Frank Forward, of the Native Sons of the Golden West, appeared before the county supervisors yesterday; urged acquisition and restoration of the building at an estimated cost of $1200, and suggested that the site and structure be dedicated as a county park for enjoyment by the public after the war.

They reported that the Statler interests, owners of a hotel chain, own the store and have expressed a willingness to deed it and up to 10 acres to the county for park purposes.

Both Mayrhofer and Forward emphasized the importance of preserving rapidly disappearing landmarks, and reported that unless the crumbling east wall of the store is repaired soon, the building will have to be torn down.

The supervisors directed their right-of-way agent to survey the property, and indicated they will accept a deed and abide by its restrictions when one is offered.

The store, with its postoffice and stage station, once was a central point for early-day settlers and the scene of a fight between them and seven bandits. Five of the raiders were killed.

April 28, 1942

VACATING OF 2-MILE HIGHWAY TO REMOVE HISTORIC LANDMARK

Another historical landmark will become a memory with the adoption of a resolution by the county supervisors vacating the two-mile highway connecting Campo with the customs house at the international border.

Constructed half a century ago, the road now is part of the Camp Lockett military reservation. Army authorities last week requested the board to authorize vacation of the road because the surrounding property has been purchased by the government. The army disclosed that Camp Lockett will be maintained as a permanent post after victory.

William H. Woolman, deputy collector of customs, announced that the customs station at the border terminus of the road will not be abandoned, but that all traffic has been stopped through the military reservation.

"It is possible that a new vehicular traffic route will have to be opened from the customs station to Jacumba, but this necessarily will be a post-war project," said Woolman.

June 1943

(San Diego Historical Society Library And Manuscripts Collection)

and three single status civilian dormitories were constructed for civilian workers at the camp.

During the summer of 1942 a reorganization within the Army led to the demise of the Old Corps Areas and the establishment of nine service commands within the Continental United States. The service commands who's boundries were the same as the old Corps Area were in turn part of the Army Service Forces that had been formed in March 1943. At the same time Army installations in the Zone of Interior were classified into one of four catergories. Those actions translated into Camp Lockett coming

under the new 9th Service Command and being classified as a Class II installation. A Class II installation was a facility where units of the Army Ground Forces were stationed. Cavalry as a combat arm was part of the Army Ground Forces. Colonel Cheyney as post commander was now part of the 9th Service Command. Subsequently the provisional 1961st Service Command Unit was formed at Camp Lockett as station troops. During 1943 the provisional 1929th Service Command Unit (School for Bakers and Cooks) was activated. On December 1, 1942 the 1st Platoon of the 3457th Ordnance Medium Automotive Maintenance Company* arrived at Camp Lockett from Phoenix, Arizona. The platoon was followed by the rest of its company on July 1, 1943. And the 777th Military Police Battalion (less four detachments) was at Camp Lockett sometime in 1943[14].

During the cavalry era at Camp Lockett there were two military police gates established on Highway 94 that controlled traffic through the military area and one traffic check point on the access road leading from the 28th Cavalry area north to Highway 94. One gate was located just beyond the Old Stone Store and the other gate was just beyond the Trading Post. Up until June 28, 1943 County Road 767 to the Mexican border was still open even though the Army controlled all the land through which it traversed. Finally on that date the County Board of Supervisors vacated and abandoned the road at the Army's request. At the same time the Army was indicating that Camp Lockett would be maintained as a permenate post after the war. Full ownership of the orginal 702 acres of land acquired by the Army in 194[illegible] was accomplished by two Declarations of Taking, one filed November 30, 1942 and the other on December 23, 1942. In total the acquisition cost the government $38,452.00.

Corresponding to the growth at Camp Lockett was the need to expand existing utilities to meet the expansion era needs. New sewer and water mains had to be installed and the butane plant enlarged. In addition the veterinary facilities along Sheridan Drive had to be expanded to meet the increased veterinary needs of the 4th Cavalry Brigade. Additional recreational needs were meet by the construction of a field house on Sheridan Drive and in early 1943 Merritt Bowl. Merritt Bowl was reminiscent of the famous Hollywood Bowl to the north and was used for stage shows, and other forms of entertainment.

Being at Camp Lockett in the years 1942 thru 1943 meant expansion and growth. But Camp Lockett only lasted until April 4, 1944 when with its cavalry troops gone it was transfered to Army Service Forces and placed on stand-by for future use as a convalescent hospital.

* Redesignated from Company A, 80th Quartermaster Battalion on November 4, 1942 at Phoenix, Arizona to 3457th Ordnance Medium Maintenance Company and on June 20, 1943 to its present designation.

The Cavalry At Camp Lockett

When the 11th Cavalry rode into Camp Lockett the night of December 10, 1941 it was under its war time organization with 70 officers and 1351 enlisted men in the regiment. In February 1941 Troops* C and G and Weapons Troop had been activated after thirteen years of inactivation. The 11th Cavalry as organized in December 1941 consisted of a Headquarters & Headquarters & Service Troop, and two squadrons of three lettered troops each.

The traditional image of the American cavalryman is the image that has been spawned in countless books and motion pictures. It is the post Civil War cavalryman who fought the American Indian across a vanishing frontier during a quarter of a century of Indian warfare. It is the image of a cavalryman charging to the sound of a trumpet and the snap of a guidon. But in reality the American cavalryman had historically fought dismounted and used their horse only as a means of transportation. In essance the American cavalryman could and did fight dismounted as an infantryman. The entry of the United States into World War II found the cavalry in transition caught between its time tested horse and mechanization.

As a cavalry regiment the 11th Cavalry was neither the oldest nor the most decorated regiment in the United States Army. It had been organized at Fort Myer, Virgina in 1901 part of five new cavalry regiments formed following the Spanish American War and during 1902-1903 it took park in the Philippine Insurrection. During 1916-1917 the regiment had been in Mexico as part of the Punitive Expedition and had routed a large band of bandits at Ojo Azules, Mexico on May 5, 1916. And during World War I the regiment had had troops on the Mexican border. It was during this time that Colonel James Lockett for whom Camp Lockett was named had commanded the regiment between 1913-1919. Following World War I the regiment spent the next twenty years in garrison at the Presido of Montery.

So on November 4, 1940 with the United States beginning mobilization the 11th Cavalry had been ordered south to Camp Seeley in the Imperial Valley. For the regiment this transfer was the start of a year in a temporary tent camp. It was a time of expansion and receipt of new men and training. For fifty-four days during the summer of 1941 the regiment had maneuvered in southeastern San Diego County while encamped at Live Oaks. But it was not until early fall that one of the regiment's squadrons moved to Lake Morena and went into camp there. Then on Thanksgiving day 1941 the squadron moved to Camp Lockett which was still under construction. So when the Japanese attacked Pearl Harbor the 11th Cavalry was divided between its camp at Seeley and its new camp at Campo. Colonel Frederick Herr and the regiment marched from Seeley on December 9 and arrived at Camp Lockett the following night. Men were sent to guard the Barrett, Morena, and Otay Reservoirs while other men outposted the border. In the days immediately following the Japanese attack the west coast was braced for a carrier attack against the mainland. And adding to the anxiety was the threat of a

* A cavalry designation equivalent to a company.

HEADQUARTERS ELEVENTH CAVALRY
Office of the Operations Officer
Camp Lockett, Calif.

May 28, 1942

MEMO TO: All Troops and Detachments.

Memorial Day, May 30, 1942 will be celebrated by this command in the manner outlined below:

1. Holiday calls.

2. Care of animals.

3. Regiment will assemble dismounted in oak grove east of hospital. Time: 9:30 A.M. Guidons report at 9:20 A.M. Formation: Line of troop columns at close interval, facing south in order from right to left as follows: Band and buglers---1st Squadron---Standards---2nd Squadron---MG Troop---HQ Troop---Med and Vet Detachments. Band to report at 9:15 A.M. to play troops into position.

4. Opening prayer..... Chaplain BARBER

5. Lincoln's Gettysburg Address..... Pvt. SMITH HQ Troop

6. Address..... Lt. Colonel FEAGIN

7. Taps..... Assembled buglers

8. Benediction..... Father Davis, Descanso

9. Informal Horse Show.
THREE CLASSES: Two entries per troop; 1 officer and one enlisted man. Class and course to be published in separate memorandum. Entry fee each class, 25 cents, to be paid as you enter. WINNER TAKE ALL. All jumping classes.

10. After Horse Show a holiday dinner will be served and the balance of the day a HOLIDAY.

By order of COLONEL HERR:

W. J. BRADLEY,
Lt. Colonel, 11th Cavalry,
Operations Officer.

Japanese landing on the west coast of the United States or Mexico.

In December 1941 the cavalryman had a wide variety of individual and crew served weapons and equipment at his disposal. The cavalryman was armed with the .30-caliber M1 Rifle and was trained in bayonet fighting and was also equipped with a gas mask for gas warfare. For sidearms they carried the seven shot .45-caliber pistol. And their heavier weapons included the .30-caliber water cooled machine gun, .50-caliber machine gun, 4.2" mortar and 37mm antitank gun. In addition to the horse the cavalryman had cars, trucks, motorcycles and scout cars.

But as 1942 passed not all of the mens time was taken up by soldiering. For recreation dances were held and young girls from adjoining communities were picked up and driven to Camp Lockett for the dances. While the remoteness of the camp afforded the opportunity for fishing on nearby lakes. Yet there was always the chance of going to San Diego on off time.

During the spring of 1942 decisions were made in the War Department in Washington, D.C. that had an effect on both Camp Lockett and the 11th Cavalry Regiment. First the 11th Cavalry Regiment had been selected for conversion to armor. Second the War Department had decided to inactivate the 2d Cavalry Division commanded by Major General Terry de la Mesa Allen but keep the division's 4th Cavalry Brigade active. The cavalry regiments in the division's 3d Cavalry Brigade headquartered at Phoenix, Arizona were to be returned to Fort Riley, Kansas for conversion to armor and assignment to the 9th Armored Division. While the regiments forming its 4th Cavalry Brigade would remain horse cavalry. On June 27, 1942 the 3d Cavalry Brigade returned to Fort Riley.

For the 11th Cavalry it would mean a transfer to Fort Benning, Georgia for conversion after only seven months at Camp Lockett. With the deactivation of the 2d Cavalry Division a home for the division's 4th Cavalry Brigade had to be found. Based on considerations far beyond the scope of this writting but in character with the segregated Army of World War II it was decided to transfer the 4th Cavalry Brigade to Camp Lockett[15]. The 4th Cavalry Brigade commanded by Brigadier General Thoburn K. Brown was composed of the 9th and 10th Cavalry Regiment which were the Army's two Negro cavalry regiments. At the time of its transfer the brigade's 9th Regiment was sent to Fort Clark, Texas and so the 4th Cavalry Brigade came west with only its 10th Cavalry Regiment which was under the command of Colonel Waldemar A. Falck. The 4th Cavalry Brigade arrived at Camp Lockett by train on June 28 and took a week to take over from the 11th Cavalry Regiment which left by train on July 6 dismounted. Under the same reorganization of cavalry which [illegible] Division in 1920 the 4th Cavalry Brigade had been authorized as an inactive unit on August 20, 1921. The brigade had been activated on February 21, 1941 at Fort Riley, Kansas and had been initially commanded by Brigadier General Benjamin O. Davis the Army's only Negro general.

At the same time on June 30, 1942 Headquarters & Headquarters Company, Southern Land Frontier Sector, Western Defense Command arrived at Camp Lockett by convoy from Phoenix, Arizona. The 4th Cavalry Brigade would be the Southern Land Frontier Sector's

base unit a mission the 3d Cavalry Brigade had held in Arizona. The Southern Land Frontier Sector was responsible for defensive planning along the Mexican border as well as participating in the internment of Japanese Americans. With its transfer to Camp Lockett the Southern Land Frontier Sector's area of responsibility still extended into Arizona and had command over lesser Army units stationed in that state. On July 1, 1942 General Brown assummed command of the Southern Land Frontier Sector [16].

Of the cavalry regiments in the Army the 10th Cavalry was rich in tradition and had a history stretching back over seventy-five years of post Civil War history. The regiment had been organized at Fort Leavenworth, Kansas in September 1866 and for eighteen years had campaigned in Kansas, Texas, and Indian Territory (present day Oklahoma). Transfered west in 1886 the regiment spent six years in Arizona and New Mexico. It was during the Indian Wars that the name Buffalo Soldier was applied to Negro soldiers by the Indians with the common explanation that the Indian saw a similarity between the hair of the Negro and that of the buffalo[17]. Following the end of the Indian Wars in 1890 the regiment transfered in 1892 to Fort Custer, Montana where its troops were dispersed at post in North Dakota and Montana until 1898 when the regiment was shifted to a staging area at Chickamauga Park, Georgia for the Spanish American War.

The 10th Cavalry Regiment formed part of former Confederate General Joseph Wheeler's 2d Brigade in General William R. Shafter's V Corps. Without horses the regiment had landed in Cuba on June 22, 1898 and two days later went into action at Las Guasimas. Then on July 1 outside of Santiago DeCuba the 10th Cavalry fought alongside the 1st United States Volunteer Cavalry as it charged up Kettle Hill under the command of Colonel Theodore Roosevelt. On August 20 the regiment was withdrawn from Cuba[18].

Over the next fourteen years the regiment had served in a variety of locations in the United States, Cuba and the Philippines with only its 2d Squadron participating in the Philippine Insurrection. Then in 1913 the 10th Cavalry was ordered to Arizona after an absence of twenty-five years. In 1916 it formed part of the provisional 2d Cavalry Brigade and crossed into Mexico as part of the Mexican Punitive Expedition on March 16, 1916. On June 21 Troops C and K engaged a superior Mexican force at Carrizal in the state of Chihuahua. When the fighting ended 9 cavalrymen had been killed and 18 other men and 1 guide captured. In turn the cavalrymen killed 12 Mexican officers including General Gomez and 33 enlisted men and wounded 53 others. Crossing back across the border in February 1917 the regiment returned to [illegible] it was on duty when the United States entered World War I. The Mexican border was tense during the war due to lingering resentment to the Punitive Expedition and German agitation and fighting broke out on the afternoon of August 27, 1918 at Nogales, Arizona. In response to gun fire from the Mexican side of the border Troops A, C and F along with three companies of the 35th Infantry crossed the border and seized the heights on the Mexican side of the border. By early evening the fighting was

* The actor and Captain Dan Daily served with the 10th Cavalry Regiment at Camp Lockett.

Note: Individual service numbers deleted by author.

RESTRICTED

HEADQUARTERS STATION COMPLEMENT
CORPS AREA SERVICE COMMAND
UNIT #1921

SPECIAL ORDERS)
NO. . . . . 70)

Phoenix, Arizona
July 13, 1942.

1. Pursuant to instructions contained in teletype from Hq. Western Defense Command and Fourth Army, dated June 20, 1942, to the CG, Hq. Southern Land Frontier Sector, WDC, Phoenix, Ariz, and upon request of the CG, Hq. SLFS, Phoenix, Ariz, the following movement of Hq Staff and Hq Co, SLFS, WDC, from Phoenix, Ariz, to Camp Lockett, Calif, on June 30, 1942, is hereby confirmed and made of record, it having been impracticable to issue orders in advance:

Movement was accomplished by motor transportation. Troops involved were Hq Staff and Hq Company, SLFS. Date of departure was June 30, 1942. Motor elements were under the control of Hq Comdt, MAJOR LAWRENCE E.SCHLANSER, Cav.

Supply: TBA equipment on hand was taken. (Plus heavy tentage, cots, bedding and footlockers). Sufficient gas and oil for the movement was secured through the QM, CASCU #1921, Phoenix, Ariz. Lunches were provided by the Co Comdr for the journey.

Troops moved at existing strength, and an advance party was authorized for the movement. Casuals were attached to Co. "A" 80th QM (LM) for rations and were reported by the C.O. Co. "A" 80th QM to Hq S.L.F.S., Camp Lockett, Calif, for disposition.

The following named officers and noncommissioned officers of Hq SLFS, WDC were authorized to travel by privately owned conveyance from Phoenix, Ariz, to Camp Lockett, Calif.:

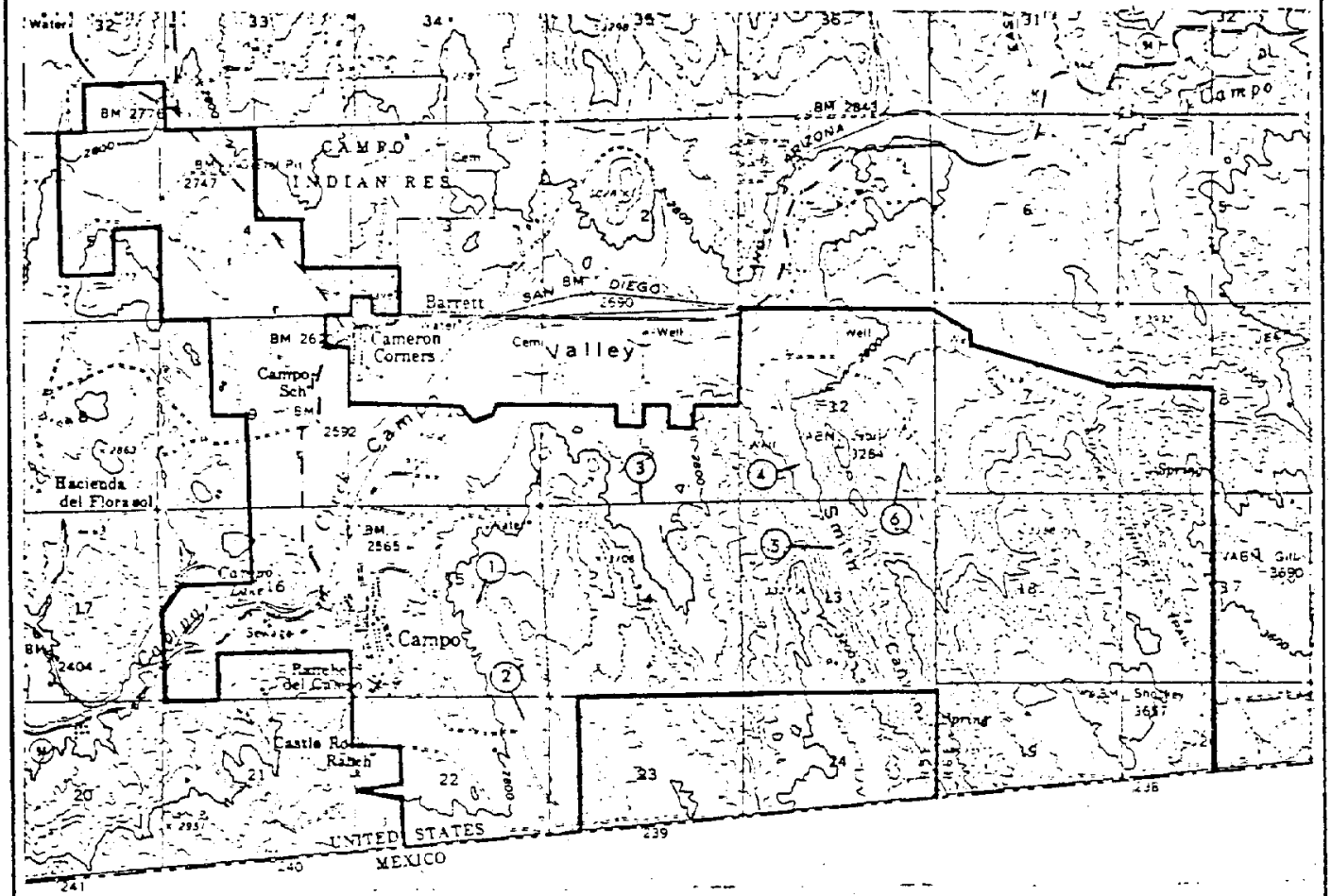
COL WILKIE C. BURT, Cav, /Hq SLFS, WDC
LT COL CARLETON BURGESS, , Cav, Hq SLFS, WDC
MAJ LAWRENCE E. SCHLANSER, , Cav, Hq SLFS, WDC
CAPT WILLIAM G. READ, JR, , AGD, Hq SLFS, WDC
1ST LT RICHARD C. BEVERLEY, , Sig C, Hq SLFS, WDC
1ST LT HASKELL C. COHEN, , Cav, Hq SLFS, WDC
M/Sgt Frank Wilson, , Hq & Hq Co, SLFS, WDC
[illegible] Hq & Hq Co. SLFS, WDC

The movement from Phoenix, Ariz, to Camp Lockett, Calif, for the following named officers and EM is a permanent change of station:

OFFICERS

COL WILKIE C. BURT, , Cav, Hq SLFS, WDC
LT COL CARLETON BURGESS, , Cav, Hq SLFS, WDC
LT COL CLAUDE W. FEAGIN, , Cav, Hq SLFS, WDC
LT COL EUGENE T. SEVERIN, , AGD, Hq SLFS, WDC
MAJ EARL F. BRADFIELD, , JAGD, Hq SLFS, WDC
MAJ JAMES S. HUGHES, , MI, Hq SLFS, WDC
CAPT WILLIAM G. READ, JR, , AGD, Hq SLFS, WDC

RANGES & TRAINING AREAS



LOCATIONS

1. Pistol Range
2. Mortar And Hand Grenade Training Area
3. Rifle Range
4. Infiltration Course
5. Mock Village
6. .50 Caliber Machine Gun And 37mm Training Area

over and the battle of Nogales was relegated to a footnote in history[19]. Then in 1931 after eighteen years of service in the southwest the regiment was transfered east to Kansas where it remained until it came to Camp Lockett with the 4th Cavalry Brigade.

The troops of the 4th Cavalry Brigade were the troops that got the full advantage of the training available on the expanded military reservation. Directly to the east of the camps water tanks was the pistol range. And to the southeast was the mortar and hand grenade training areas. To the northeast over in Grand Maria Canyon was the rifle range. While in Smith's Canyon further to the east was the infiltration course and mock village. And in Fire Canyon near the eastern boundrey of the military reservation the .50-caliber machine guns and Weapons Troop, 4th Cavalry Brigade's 37mm antitank guns were fired.

With the arrival of 1943 the 28th Cavalry Regiment under the command of Colonel Edwin M. Burnett was activated on February 25 at Camp Lockett and at Fort Clark, Texas the 27th Cavalry Regiment was also activated. On the same day the 2d Cavalry Division was activated as a full Negro cavalry division. But instead of the entire 2d Cavalry Division being assembled on a single post the division was divided between Fort Clark, Texas and Camp Lockett, California. So with the reactivation of the 2d Cavalry Division there was no change in station for the 4th Cavalry Brigade.

Recreation for the men of the 4th Cavalry Brigade was enhanced by the construction of Merritt Bowl in early 1943. The bowl could accommodate large groups of men for a wide variety of entertainment. From Hollywood entertainers were brought to perform for men with stage shows. While such noted personalities as World Heavy Weight Boxing Champion Joe Louis visited with the men. And in the 28th Cavalry Regiment area the Special Services Officer put on several soldier shows in the natural amphitheatre behind the regimental headquarters for the troops. Enhancing the mens time off was transportation to metropolitan areas such as San Diego and Los Angeles. For the soldier desiring more intimate pleasures there were women in whore houses along Highway 94 both east and west of Camp Lockett for the men to spend their money on. While other soldiers sought relaxation in the mountain communities and visited the hotel at Bankhead Springs or Jacumba to drink their beer in a non-martial environment. Married personnel found housing in the surrounding communities for their families. During the turbulent summer of racial unrest within the Army in 1943 the men at Camp Lockett were highly commended for their steadiness.

Not all of the men's efforts were spent solely on military training. During September 1943 squadrons from both the 10th and 28th Cavalry Regiments helped control giant forest fires in the Cleveland National Forest. And the forest supervisor wrote General Brown. "There is no telling how large these fires might have been had it not been for the rapid mobilization of your men from Lockett[20]".

Then the War Department decided to ship the 2d Cavalry Division overseas for disbandment. The Army's 1st Cavalry Division had been dismounted in 1942 and was fighting in the

Pacific as infantry. The 2d Cavalry Division commanded by Major General Harry J. Johnson was being sent to North Africa where its units would be converted into service units*. When the 4th Cavalry Brigade moved to its staging area at Camp Patrick Henry, Virgina its horses would be left at Camp Lockett for disposal. The day of the horse soldier in the United States Army was over and of the ten horse mounted regiments of cavalry at the start of the war only the 2d Cavalry Division's 9th and 10th Regiments remained. On January 1, 1944 with the impending transfer of the brigade two Quartermaster remount units on temporary duty from the Reno Quartermaster Depot at Fort Reno, Oklahoma arrived at Camp Lockett to handle the disposition of the departing 4th Cavalry Brigade's horses. These units were the 253d Quartermaster Remount Squadron (less Troop C and D and detachments) and Troop B, 252d Quartermaster Remount Squadron. They returned to Fort Reno on April 21, 1944. And on December 8, 1943 the 2d Veterinary Company arrived from Camp Carson, Colorado and stayed at Camp Lockett until February 2, 1944.

On January 30, 1944 the 4th Cavalry Brigade departed Camp Lockett followed by its 10th and 28th Cavalry Regiments on February 11. With the departure of the cavalry troops the remaining work was the disposition of their horses, saddles and other horse equipment. Disposition of the horses was accomplished by selling some of them to the general public and shipping the better animals by train back to the Reno Quartermaster Depot. The saddles and other horse equipment was piled into a warehouse to await transfer to the War Assests Administration and ultimate sale to the public. The day of the horse soldier at Camp Lockett was over.

* The 4th Cavalry Brigade and its two regiments were inactivated outside of Oran, Algeria between February and May 1944.

Mitchell Convalescent Hospital

On July 7, 1944 the Mitchell Convalescent Hospital under the command of Colonel Frank Chamberlain was activated at Camp Lockett[21]. The convalescent hospital named for Civil War Surgeon Silas W. Mitchell was the first Army Service Forces convalescent hospital in the United States. To the Mitchell Convalescent Hospital soldiers would be sent for the final phase of their recovery. With the conversion of the camp to a convalescent hospital Camp Lockett was reclassified to a Class I facility which signified that it was an Army Service Forces facility. The convalescent hospital remained under the 9th Service Command now headquarted at Camp Douglas, Utah. By years end Colonel J.E. Campbell would be in command of the convalescent hospital.

The change of Camp Lockett to a convalescent hospital in turn meant the conversion of many buildings and the construction of new ones. Already there had been a reduction in the size of the military reservation with the cancellation of Lease 60 on June 12, 1944 and 61 on June 8. Both leases along with Lease 62 had been declared surplus on March 16, 1944[22]. But not all facilities that existed during the cavalry era survived into the convalescent hospital period. Most noteable was the absence of the stockade that had existed only during the 4th Cavalry Brigade's presence at Camp Lockett.

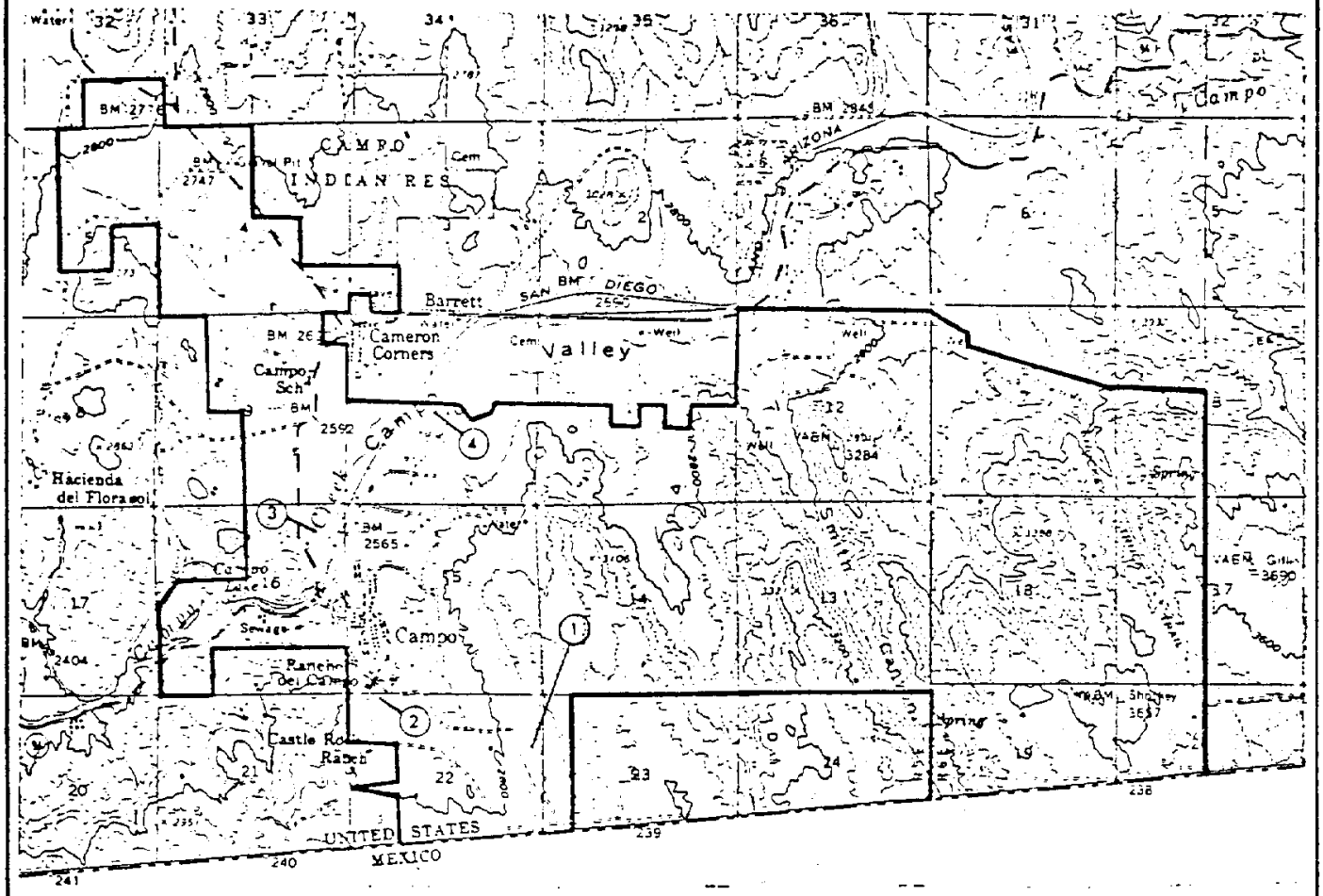
Amongst the buildings converted for the hospital were all of the troop housing constructed by the George A. Fuller Company in 1941. A new area east of Moore Road was established and boundried by the old road leading out to the Circle S Ranch and christened Shannon Road and the newly built Wheeler and Hunter Roads. Of the 1941 construction all twenty-five of the two story barracks and two two story officers quarters were converted into hospital wards. But it was the hospital that had its exterior appearance changed the most as its patient capacity was increased from 87 patients to 150 patients. A new nurses quarters* and medical warehouse were constructed next to the officers quarters and Ward 1. The former enlisted medical detachments barracks was converted into a ward and lengthened. The mess hall and ward 2 were lengthened and a new ward was built across the ramp from the storehouse. And three new staff barracks were constructed. All of the new buildings were tied into the existing hospital ramp system. Also a stone building with bars on its windows was constructed for drug storage.

While in the upper stables area the 4th Cavalry Brigade stables were torn down and a power generator plant was constructed and an auxiliary power line was run to Lake Morena[23]. The hospitals second source of electrical power was the Mountain Empire Electrical Co-operative.

For the conversion and construction work the Dell E. Webb Construction Company of Phoenix, Arizona was selected and Taylor and Barnes of Los Angeles was selected as the project Architect-

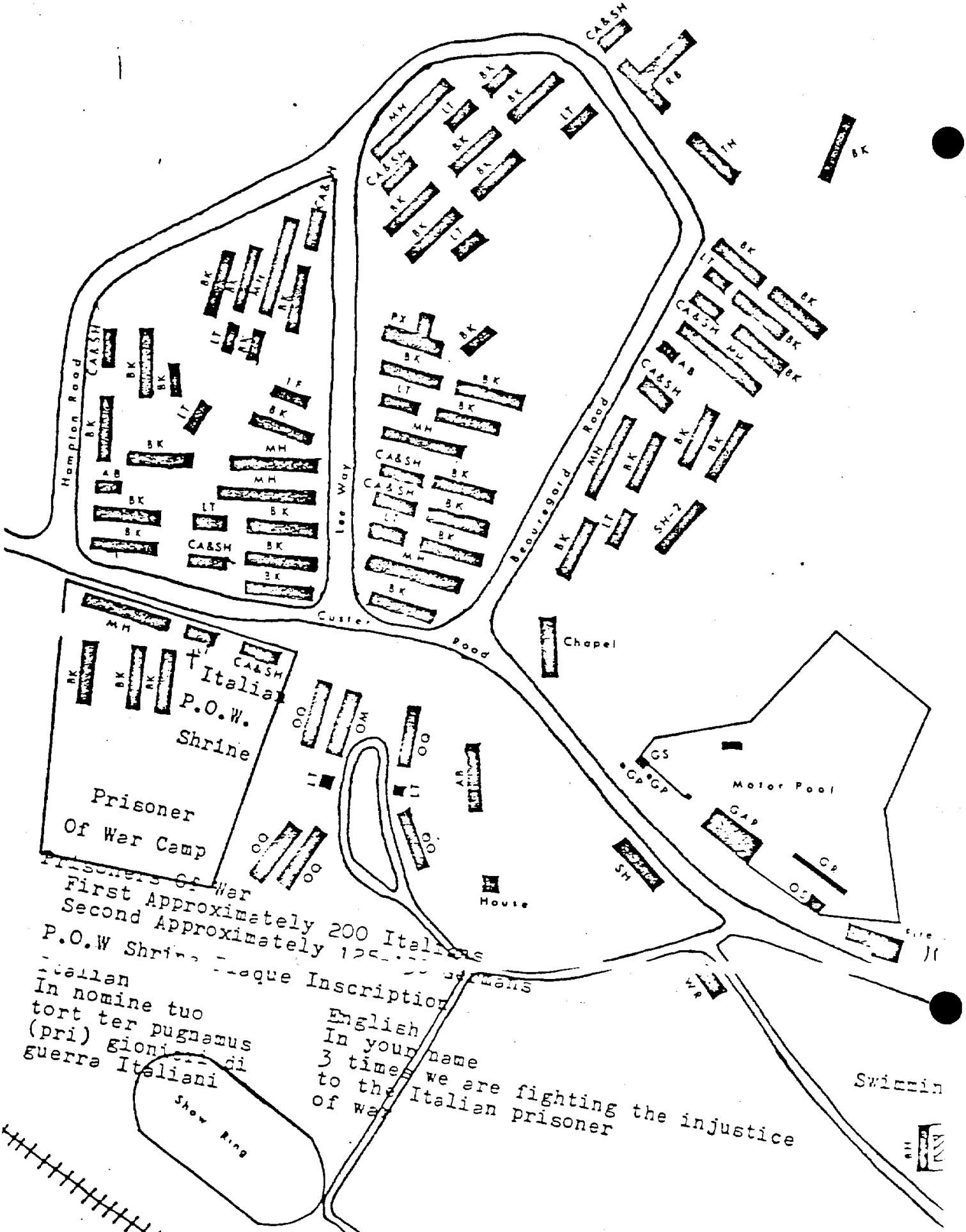
* As the 1946 inventory of improvements on War Department Land indicates Women Army Corps quarters and mess it is my opinion that they occupied the former nurses quarters in the hospital.

MITCHELL CONVALESCENT HOSPITAL



LOCATIONS

1. Driving School
2. Lockett Field
3. Nine-Hole Golf Course
4. Prisoner Of War Camp


Hampton Road
Lee Way
Beauregard Road
Custer Road
Chapel
Italian
P.O.W.
Shrine
Prisoner
Of War Camp
House
Motor Pool
Swimmin
Show Ring
Prisoners Of War
First Approximately 200 Italians
Second Approximately
P.O.W Shrine
Inscription
Italian
In nomine tuo
tort ter pugnamus
(pri) gioni di
guerra Italiani
English
In your name
3 times we are fighting the injustice
to the Italian prisoner
of

This is the only record acquired from the National Archives having any direct reference to the branch prisoner of war camp at Camp Lockett. Though the quality was bad the reference to the transfer of 17 prisoners was legible; the prisoners were Italians.

PART II: PAID LABOR REPORT BY PROJECTS

Project code	Short title	Total man-days
	P/W Camp labor	
11.	P/W Co. overhead	477
12.	P/W canteen	142
13.	P/W Officers' orderly	0
14.	P/W hospital	0
15.	Stockade admin.	100
19.	Other P/W camp	60
	Sub total	779
	Post and Army work	
21.	P/W maint. and supply	62
22.	Bakery	213
23.	Laundry	392
24.	Clothing and equip.	119
25.	Other post QM	2249
26.	Bldgs. and util.	567
27.	Grounds and roads	0
28.	Other post engr.	162
29.	Motor maint. and rep.	527
30.	Other ordnance	0
31.	Combined maint. shops	698
32.	Post medical	617
33.	EM mess	390
34.	EM service club	416
35.	Off. mess or club	262
36.	Post exchange (PX)	150
39.	Other post work	376
40.	Other Army work*	120
	ASF Depot	0
	Sub total	6770

Project code	Short title	Total man-days
	Private contract work	
51.	Agriculture	
52.	Forestry and logging	
53.	Mining and quarrying	
54.	Construction	
55.	Food processing	
56.	Other mfg.	
57.	Transportation	
58.	Trade	
59.	Other non-governmental	70
	Sub total	70
	Public contract work*	
	Sub total	0

Recapitulation	
P/W Camp labor	779
Post and Army work	6770
Private contract work	70
Public contract work	0
TOTAL**	7619

*See general instructions for project code.

**Total man-days reported for all proj- worked on paid labor, Part I, Sec. 3a.

PART III: REMARKS:

100 PW's Trfd to Tooele Ordnance Depot, Tooele, Utah. 28 March 1945

70 PW's Trfd to OATSC, Hill Field, Ogden, Utah. 28 March 1945

17 PW's Trfd to PW Br CP, Mitchell US Convl Hosp., Campo, Calif. 28 March 1945

FOR THE COMMANDING OFFICER:

Engineer. Taylor and Barnes had previously worked on the cavalry camp. But Dell Webb did not complete his contract nor were all the buildings started ever finished! Through construction and conversion patient capacity at the Mitchell Convalescent Hospital was 207 officers and 1509 enlisted men. In addition the hospital had housing for an additonal 76 officers and 1252 enlisted men.

For the physical and educational needs of the patients a driving school was constructed to the southeast of the camp and a nine-hole golf course constructed in the field north of the Cameron home between the San Diego & Arizona Eastern Railroad and Highway 94. Blacksmith shops were moved and positioned on the east side of Sheridan Drive between swimming pool number 1 and Custer Road for use as class rooms and shops. Other buildings were converted for use other than their designed pruposes. Ultimately the convalescent hospital had twenty-nine buildings committed to educational purposes.

There was a course in animal husbandry or the patient could learn to paint or work in ceramics or play a musical instrucment[24]. He could also learn woodworking, sheet metal, photography, auto mechanics, drafting, refrigeration, and welding. In addition there was a six week driving course at the hospitals driving school and courses in typing, English, mathematics, Spanish, and salesmanship were also available.

Likewise a wide choice of athletic activities were also available. These activities ranged from swimming to horseback riding. Football and baseball and other outdoor games took place on Lockett Field. While volleyball and basketball and other indoor games were played in the large field house. Fishing and boating was avilable at Lake Morena. Other activities at the Mitchell Convalescent Hospital included twice-a-week dances, a theatre, officers club, USO shows, library, and weekly tours. Hospital activities were chronicled in the camps newspaper the ACORN.

Another factor at the convalescent hospital was the prisoner of war camp in the old Troop D, 28th Cavalry area. The prisoner of war camp at Lockett was a branch of the prisoner of war camp at Camp Haan in Riverside County[25]. The branch camp had been established as source of labor for the Mitchell Convalescent Hospital. German and Italian prisoners had started arriving in the United States in 1942 but their utilization had been greatly restricted until September 1943 when responsibility for them was transfered to the Commanding General, Army Service Forces. From then on the utilization of prisoners in the Continental United States had been eased and they could be used almost anywhere in the United States.

The main prisoner of war camp at Camp Haan had been established in December 1943 for 250 Italian prisoners who were transfered from Florence, Arizona. The branch camp was run by personnel from Camp Haan and housed a maximum of 200 Italian prisoners. They were used in all phases of the hospitals operation. Prisoners worked in mess halls, warehouses, shops, and on the roads and grounds. Though there was a stockade fence around the prisoner of war camp which the prisoners built themself's upon their arrival at Camp Lockett there was never a gate erected. No one tried to escape. And the only major problem occured during

the prisoner of war era at Camp Lockett was when the Italian prisoners staged a strike over the poor quality of their food. Subsequently Germans replaced the Italians and they remained at the camp until the branch prisoner of war camp closed in May 1946. The Germans totaled between 125 to 130 men. Much of the cement work at Camp Lockett was done by the prisoners. And to this day a religious shrine constructed by the Italian prisoners survives in a rock outcropping.

Finally on June 19, 1946 the Mitchell Convalescent Hospital was declared surplus. Only five years had passed since work had started on Camp Lockett. Those five years had been time of construction, growth, conversion, and demise. In five years the Army had put $6,391,566.00 into the Camp Lockett Military Reservation of which $642,063.00 had been spent on leased land which it did not own. It total there were approximately 405 buildings comprising the entire installation on June 19, of which 82 were on land the Army leaded from Etty L. Leach, Manuel Ortega, and Ellsworth M. Statler. At the time the surplus declaration was filed on June 19, 1946 only an inventory of improvements on the 702 acres of War Department owned land was submitted. See Appendix F for the Inventory Of Improvements On The War Department Owned Land.

Though Camp Lockett had been declared surplus its future as a military base was forseen in the same report when it was recommended that it be retained and used as a Signal Corps or Engineer School. It was because of the extensive conversion of buildings that had occurred that the recommendation for retention by the government of that portion of the camp had been made. The author of the report stated, "From actual Army experience with the Signal Corps and Engineers, it is the writer's opinion that the subject buildings and the surrounding terrain lend itself admirably to Signal Corps or Engineer training". A second option was the use of the former camp as a Veterans Hospital best suited for convaelescing patients. While the Catholic Bishop of San Diego requested a portion of the camp for the Knute Rocke Foundation School for Boys.

But there was no movement towards disposition until 1949. The leased land with their improvements reverted back to their original owners. Then on September 15, 1949 the General Services Administration acting for the Federal Government transfered approximately 39 acres of land to the Mountain Empire Union High School District (the acreage cited includes the small portion of land the district got after the County of San Diego returned it to the Federal Government on February 9, 1954). Then the following year on June 7, 1950 the Federal Security Administration acting for the Federal Government transfered approximately 600 acres to the County of San Diego. While the additional 63 approximate acres were disposed of also. The Camp Lockett Military Reservation was no more.

Acknowledgments

Throughout the course of my initial research on Camp Lockett I was fortunate in that my research was supported at every stage by people I turned to for help. Whether it be a private citizen in Campo or a county employee in San Diego or an Army officer in Washington the support I received from them was invaluable to the completion of my project. Therefore I would like to acknowledge the following individuals for their assistance.

Iam especially greatful to Glenn Francis of Campo for sharing his vast knowledge of Camp Lockett with me. Because without his assistance I would erred in my research many times.

Colonel Robert N. Waggoner and his successor Colonel David L. Lemon, Chief, Historical Services Division and Alfred M. Beck, Acting Chief, Research and Analysis Division, Department of the Army, The Chief of Military History and the Center of Military History, Washington, D.C.. Edwin R. Coffee, Assistant Chief, Modern Military Headquarters Branch and George C. Chalou, Assistant Chief, Modern Military Field Branch, Military Archives Division, National Archives and Records Service, Washington, D.C..

Edward F. Cornett, Chief, Property Management, Real Property Management Division, County of San Diego. And the county employees in the Map Section in Records Management, and Survey Records Units who I encountered during my research. Sylvia Arden, Head Librarian, San Diego Historical Society and Staff. Mac Parkins, District Conservationist, United States Department of Agriculture, Soil Conservation Service, El Cajon.

Al Fulton, Supervisor, Rancho Del Campo/Del Rayo for allowing me to visit his facility and Cynthia L. Davis, Camp Nurse and Pat Bowles and Estell Romero for their assistance. Iam also indebted to Dr. John Perrish, Superintendent, Mountain Empire Unified School District for allowing me access to his districts historical records and C. Donna Biddle and Beverly Young for their assistance during my visit to the district office. And to Judy Ludlum for her assistance during my visit to the district's high school office. And the numerous people I men during my field research at Campo.

The opportunity to expand both my history and corresponding maps necessitated revising my historical project on Camp Lockett and Iam greatful to these former officers and enlisted men who shared some of their experiences and reviewed my map of Camp Lockett at its maximum expansion as a cavalry camp. For without their assistance much of the old camp would have been lost to subsequent generations. Therefore I want to express my gratitude to the following individuals for their help. Mr. Charles G. Barrett, Jr., West Covina, California. Mr. Leroy Higdon, New Florence, Missouri. Mr. William G. Bell, Arlington, Virgina. Mr. Robert G. Campbell, 9th & 10th Cavalry Association, Oakland, California. Major General Lawrence E. Schlanser, USA (Ret.), Annandale, Virgina. Colonel Brewster Perry, USA (Ret.), Essex, Connecticut. Lieutenant Colonel Hal Gambrell, USA (Ret.), El Paso, Texas. Master Sergeant David J. Allen, USAF (Ret.), Secretary and Historian, 9th & 10th Cavalry Association, Wichita, Kansas.

Notes

1. At the time that Captain Bernard's company arrived in San Diego he was the only Company officer on duty with his company. Both of his lieutenants were absent from their company on detached service. Captain Bernard was a former enlisted man and veteran 1st Cavalry Regiment officer who had fought in the Civil War, against Apachies in Arizona and the Modocs in Northern California. His reputation was that of a fighter and the turmoil on the border meant that he was the right man to be sent to San Diego.
2. Lieutenant John P. Story's actual duty with the reactivation of Post New San Diego was that of Quartermaster and Commisary. Originally Lieutenant Story had been an infantry officer but had transfered to the 2d Artillery in 1870. Strangely the 1st Cavalry Regiment's Regimental Return for January 1876 makes no reference to this officer in any capacity with the regiment? So his actual relationship to Company G was not determinable and therefore there was no documentation of him leading any military force out to Campo as most writers state nor of him wounding himself there as they also state?
3. Reference to General DeWitt inspecting the Campo site is to be found in the National Archives, Record Group 407, Records of the Adjutant General's Office AG 625 Camp Lockett (11-17-41). Quarters for camp commander. In this group is a reference to the old 9th Corps Area commander making the initial inspection of the Camp Lockett site. In light of the fact that the San Diego City Council approved the Army's request to draw water from its Morena Reservoir on October 5, 1940 there is no question that the initial site inspection was conducted by General De Witt because he was the commanding general of 9th Corps Area until a War Department Directive on October 3, 1940 seperated field armies and corps areas.
4. Water Allocated To Cavalry Camp, San Diego Union, October 6, 1940. San Diego Histocial Society Library and Manuscript Collection, Vertical File, Campo File.
5. Source of reference of all 1941 construction is from The National Archives, Record Group 77, Records of the Chief of Engineers, Construction Completed Report, Cantonment Housing For Eleventh United States Cavalry, March 1, 1942.
6. The National Archives, Record Group 77, previously cited.
7. The National Archives, Record Group 407, previously cited.
8. Gach, Gene. In The Army Now. Dodd, Mead & Company, New York, 1942. [illegible] states that the 26 Squadron was at Camp Lockett. But because this book was published in 1942 everything of military value was shrouded in false identifications. Camp Lockett is known as Camp Pike and Camp Seeley as Camp Hoyt. So the squadron identification in the book may have been deliberately changed also!
9. The National Archives, Record Group 77, Records of the Chief of Engineers, Construction Completed Report, Surface Drainage Facilities, May 15, 1942.
10. The National Archives, Record Group 77, Records of the Chief of Engineers, Construction Completed Report, Roads and Parking Areas, June 25, 1942.

11. The National Archives, Record Group 153, Records of the Land Division, Office of the Judge Advocate General, Final Project Map, Camp Lockett, April 27, 1944.
12. The National Archives, Record Group 407, Records of the Adjutant General's Office. AG 627 Camp Lockett (10-9-41) Construction of Guard House.
13. Declaration of Surplus Real Property, Mitchell Convalescent Hospital, Camp Lockett, Campo, California, June 19, 1946. Property Division, County of San Diego.
14. The presence of the 777th Military Police Battalion at Camp Lockett was provided in correspondence dated May 20, 1983 from the Modern Military Headquarters Branch, Military Archives Division, The National Archives who quoted station lists in its custody. But in correspondence from the Chief, Historical Services Division, Center of Military History, Department of the Army on January 10, 1984 Colonel David L. Lemon stated that their records did not indicate that the battalion ever served at Camp Lockett. So if the battalion or an element of it ever served at Camp Lockett is subject to question and a study of its unit records needed.
15. Lee, Ulysses. The Employment of Negro Troops. U.S. Army In World War II, Special Studies. Washington: Government Printing Office, 1966. This book provides specific references to Camp Lockett, the 4th Cavalry Brigade, and the 2d Cavalry Division.
16. What scant information I have on the Southern Land Frontier Sector was derived from Major General Lawrence E. Schlanser, USA (Ret.) and Mr. Leroy Higdon, former commanding officer and supply sergeant of Headquarters & Headquarters Company, Southern Land Frontier Sector respectively. Of special value was Special Orders, Number 70, Headquarters Station Complement, Corps Area Service Command, Unit #1921, dated July 13, 1942 provided by General Schlanser, which established the exact date that the unit came to Camp Lockett. Presently in The National Archives, Modern Military Headquarters Branch, Military Archives Division's possession is The History Of The Western Defense Command which contains a seperate volume history, Number 7. History Southern California Sector and Southern Land Frontier Sector. I have not been able to acquire a copy of that history yet as I prepare this revision to my project.
17. Leckie, William H.. The Buffalo Soldiers, A Narrative Of The Negro Cavalry In The West. Norman: University of Oklahoma Press, 1967, p. 26 note 14.
18. During the regiment's time in Cuba five enlisted men won the Congressional Medal Of Honor as compared to the two officers and one enlisted man who won it it twenty-five years of Indian Warfare.
19. The actions of the 10th Cavalry during both the Punitive Expedition and the battle of Nogales derived from 10th Cavalry & Border Fights by Colonel H.B. Wharfield.
20. Lee, Ulysses, previously cited, p. 494.
21. Date of activation taken from the Camp Lockett data card acquired from the Center of Military History.
22. Final Project Map, previously cited.

23. Declaration of Surplus Real Property, previously cited.
24. Mitchell Convalescent Hospital, Camp Lockett, California folder of general information given to new arrivals at the convalescent hospital, updated.
25. Broadview of the prisoners of war, prisoner of war camps derived from The National Archives, Record Group 389, Records of the Office of the Provost Marshall General, 1941. Camp labor reports 1945-thru March 1946. Transfer of certain POW's. Report of visits. Construction correspondence. While information concerning the Camp Lockett branch prisoner of war camp was derived from discussions with Mr. Glenn Francis of Campo, California who was employeed by the Army at Camp Lockett.

APPENDIX G-2

Article, entitled *"Training Facilities Formed An Integral Part of Camp Lockett Military Reservation"*, originally appeared in the November-December 1990 Issue of the Camp Lockett News, reprinted in Volume 9, Number 1, Fall 1994 Issue, with an additional reprint in Volume II, 1996, from Narrative entitled *"Military Presence in the San Diego Backcountry"*; Camp Lockett News, Campo, CA; Mountain Empire Historical Society, Campo, CA.

copied from "Military Presence in the San Diego Backcountry," Vol. II, 1996, by James Hinds.

From Vol. 9 No. 1 Fall 1994

Training Facilities Formed An Integral Part of Camp Lockett Military Reservation

This article appeared in the November-December 1990 issue of the *Camp Lockett News*. More information is needed about various aspects of the training facilities used by the cavalry. If you have any information please write the society at P.O. Box 394, Campo, CA 91 906.

It was the requirements of Camp Lockett's cavalry units that led to the establishment of training facilities on the military reservation in Campo. The necessities of mobilization and the transfer of the 11th Cavalry in November 1940 from the Presidio of Monterey to San Diego and Imperial counties led to the establishment of Camp Lockett - the last cavalry camp the Army would ever build. While the regiment was deployed in temporary tent camps in San Diego and Imperial counties, construction of Camp Lockett was undertaken in the summer and fall of 1941.

In the spring of 1941 the Army leased 702.436 acres on which to build the new cavalry camp. Ultimately the camp would be expanded to 7,108 acres through leases and permits and the inclusion of Interior Department land. With one exception it is not possible to say exactly when the additional land was added. Probably it occurred in 1942 as the majority of the training facilities established during the two-year cavalry occupancy of the camp was on land acquired for the expansion of the military reservation.

Other facilities used

Even at its maximum expansion the military reservation was unable to accommodate all the cavalry's training requirements. The cavalry turned to other military facilities in both San Diego and Imperial counties on which to train. In late summer or early fall 1942 the 10th Cavalry maneuvered against another military organization in the Cleveland National Forest.

During the summer and fall of 1941 construction effort which would house the troops then living under canvas, plus the other facilities making up the camp, was confined to the camp's cantonment area. At that time, training facilities were not built. When the 11th Cavalry occupied the camp on December 10, 1941, it did so while executing its wartime security missions which took precedence over training.

It would not be until early 1942 that the 11th Cavalry set forth to establish training faculties at Camp Lockett. Upon its arrival the regiment was already trained. During the preceding year the regiment had been expanded to its wartime organizational structure and filled with selectees straight from reception stations. These men had been trained within the regiment. During the summer the regiment conducted maneuvers in southeastern San Diego County.

One of the characteristics of the Camp Lockett Military Reservation was the presence of County Road 767 that passed through the camp from Highway 94 approximately 1.3 miles southward to the Mexican border. It was a vestige of Campo's pre-army days when ranchers primarily moved cattle across the border. Much of the early training facilities were constructed on the southern end of the

reservation adjacent to this road. The road was not vacated and abandoned by the county until June 28, 1943.

Several ranges built

In early 1942 the 11th Cavalry established a series of ranges and mounted training courses. In March 1942 a 10-obstacle course for mounted soldiers was constructed on the western edge of the regiment's mounted parade ground. This course covered 1-1/4 miles and included a back course. At a collected gallop and without any runouts, riders could complete the course in about six to seven minutes.

The regiment's mounted parade ground was a large, clear open field. For its dismounted drill the regiment utilized a flat area on the eastern edge of the cantonment area. The mounted parade field was utilized if the entire regiment was present for dismounted drill.

The 11th Cavalry also constructed a mounted pistol course and a mounted saber course. The mounted pistol course was about a quarter-mile in length and had 10-12 half-size to full-size simulated enemy targets spaced 15-20 yards apart on both sides of the course. They were partially obscured by brush, etc. The course was timed and to qualify as marksman, sharpshooter or expert a soldier had to complete it in X? number of minutes and hit 75%, 84% and 95% of the targets. The course had a slight hill mass in the line of fire. The mounted saber course was in the same vicinity but was used very little and then mostly for sport.

Other ranges used

To meet other range requirements the 11th Cavalry established approximately six to eight pistol ranges for dismounted firing at various locations near the border where the terrain provided a suitable barrier. Because most of the regiment's personnel qualified prior to the move to Camp Lockett, the regiment needed these ranges for its replacement personnel and for a refresher course. About three to four ranges were established by the border for the small small number of men who were armed with sub-machine guns.

An auxiliary 1000-inch range was established across the county road directly west of the post chapel to meet other weapons training requirements. The regiment received 100,000 rounds of 22-caliber ammunition and borrowed 17 rifles from Fort Rosecrans. Each troop had the use of this range for two and a half days. After the arrival of the 4th Cavalry Brigade in mid-1942 some of the 10th Cavalry officers played catch-up polo on this site. Later, civilian war housing was built on the site.

The 11th Cavalry turned to other military facilities to meet the training requirements for its crew served weapons. According to Colonel Charles E. Fife, AUS (Ret.), the regiment's S3 air officer who supplied the 11th Cavalry's training and facilities information for this article, the regiment's .30-caliber and .50-caliber machine gun crews trained on the sub-caliber range with 22-caliber ammunition. For record fire, live .30-caliber and .50-caliber fire, the soldiers were trucked to Fort Rosecrans. Though Colonel Fife is not certain if they actually fired there. Also, he stated that the regiment's 81mm mortars were not fired at Camp Lockett, and to the best of his recollection live fire and record fire were performed in the San Diego area.

More facilities established

With the arrival of the 4th Cavalry Brigade in mid-1942 training continued and new training facilities were established on the military reservation. The brigade's 10th Cavalry utilized the same mounted parade grounds that the 11th Cavalry had. When the brigade was expanded in February 1943, the newly activated 28th Cavalry also drilled on this field.

In September 1942 the 10th Cavalry used the firing ranges at Camp Seeley. At Seeley the ranges were under the command of Lieutenant William L. Hastie USAF (Ret.) who had one or two officers to assist him plus a detachment of enlisted men to run the mess hall, be armourers, and maintain the camp. At Seeley there was a mess hall, temporary barracks for the officers, and tents for the enlisted men. Troops were shuttled to fire on the rifle ranges. In July or August 1943 the regiment again used these ranges.

At Seeley the regiment informally fired its .30 caliber and .50-caliber machine guns at a wrecked car that was placed to the west of the rifle range. According to Colonel Hastie, he could not recall any formal machine gun or pistol ranges at Seeley. In 1942 and 1943 the 10th Cavalry maintained a 1000-inch machine gun range about a mile or two west of Camp Lockett and north of Highway 94.

Unlike its predecessor the 10th Cavalry fired its mortars on the Camp Lockett Military Reservation. According to the regiment's former mortar platoon sergeant, Master Sergeant David J. Allen, USAF (Ret.), he fired eastward into the rolling hills from a position just off County Road 767 at the mounted parade grounds.

With the activation of the 28th Cavalry and the expansion of the military reservation, new training facilities were added. Directly behind the 28th Cavalry's cantonment area a dismounted drill field was established. On its eastern edge foxholes were dug and rifle grenades were fired by the regiment from there. In the regimental area was a gas chamber and one also in the 10th Cavalry area. At the same time a second mounted parade grounds to accommodate brigade size reviews was established just west of the San Diego Arizona & Eastern Railroad tracks.

Francis aids research

When I started my Camp Lockett research in 1983, long-time Campo resident Glen Francis, who was an Army civilian employee at the camp, noted where various training facilities were located or where training was conducted. These facilities were constructed in the 4th Cavalry Brigade era and their locations on the map are where I was told they were. These facilities included a pistol range, rifle range, mortar and hand grenade training area, infiltration course, mock village, and .50 caliber machine gun and 37mm antitank gun training area. Only two of the facilities are in the article. I have yet to encounter anyone who remembers training on them!

At Camp Lockett the 28th Cavalry did some of its weapons training. According to former Troop C Sergeant Fred Jones they did no live rifle firing at Camp Lockett. He recalls doing dry-fire at the pistol range and that his troop's .30-caliber machine guns were fired subcaliber on the pistol range. He did not know where the regiment's heavy weapons were fired. However, 10th Cavalry

Mortar Platoon Sergeant Allen does not recall firing his mortars from the location indicated to me as being a mortar-and-hand-grenade training area.

When it was time for the 28th Cavalry to record fire its MI rifles, the regiment was taken to Seeley (the consensus is that the entire regiment went to Seeley at one time). According to Jones no one qualified at Seeley because of the effects the heat radiating off the desert floor. Colonel Hastie, writing in 1987 of his experiences at Seeley, described the effects the heat had thusly, "... we had to knock off firing before noon because the heat made our targets appear to be dancing." According to Service Troop Lieutenant Charles Barrett, he remembers taking trucks to Seeley to pick the men up. He does not recall, however, if the entire regiment was there or not. Jones said they were next taken to Camp Callan just north of San Diego (Torrey Pines) where they bivouacked.

According to the regiment's former S-4 officer Colonel Sidney L. Loveless' personal World War II diary, the regiment used ranges at Lockett and Callan for proficiency in rifle and pistol during August and September 1943. (Jones says the pistols were at Lockett.) Loveless states that for record fire the regiment competed firing its MI rifles on September 6,1943, at the Marine Corps' Camp Matthews Rifle Range located adjacent to Camp Callan.

No one I have spoken to remembers firing on the rifle range at Camp Lockett. Enough physical evidence is still visible today to verify that a range had been built at Camp Lockett. The only explanation I can see is that a range was built as part of an upgrading of the camp and not to meet a specific unit's training requirements, and thus was completed after the 4th Cavalry Brigade's weapons firing in 1943.

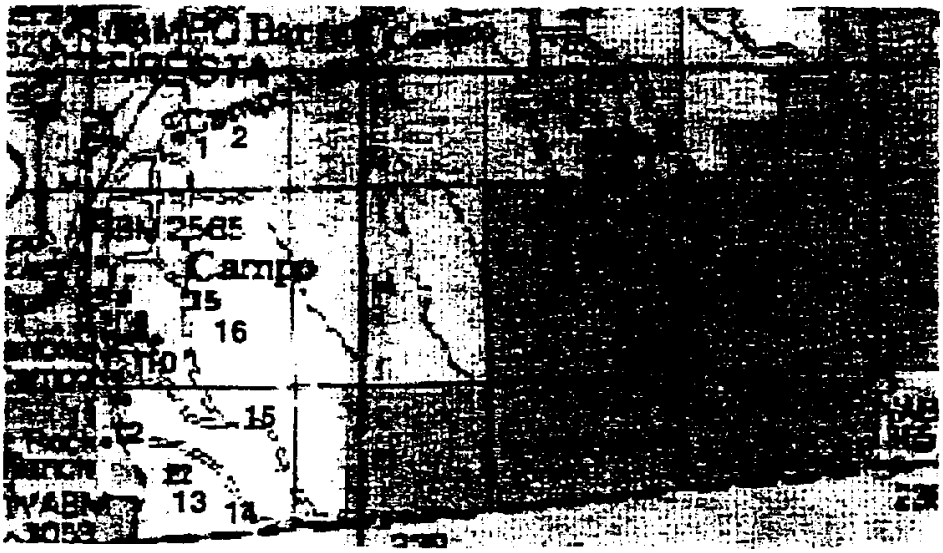
Training site built in Smith Canyon

Father to the east-in Smith Canyon-the Army constructed both an infiltration course and a mock village for training troops. I have talked with several Camp Lockett cavalry veterans who remember training at these two facilities. Training with .50-caliber and 37mm antitank guns was conducted in another canyon just to the east of Smith Canyon.

When the 4th Cavalry Brigade arrived at Camp Lockett in mid-1942 the brigade's weapons troop possessed 37mm antitank guns. Weapons troop was deactivated in early 1943. When the 10th Cavalry's Special Weapons Troop was reorganized as Weapons Troop it got 37mm antitank guns. I do not know if the 28th Cavalry had these weapons or not.

Following the departure of the 4th Cavalry Brigade in early 1944 the 115th Cavalry Reconnaissance Squadron (Mechanized) utilized Camp Lockett for its training. The 115th brought both tanks- M3 Stuart Light Tanks and artillery-75mm (Gun)- to the camp. Artillery firing was conducted on the eastern edge of the military reservation where an artillery firing position was established south of Shockey Truck Trail just off Highway 94. Old car bodies were set up as targets on the southeastern corner of the military reservation adjacent to the Mexican border.

The termination of the 115th's training activity at Camp Lockett ended the use of the camp by combat troops. On August 1, 1944, the Mitchell Convalescent Hospital was activated at Camp Lockett and with it a new era in the camp's history began.



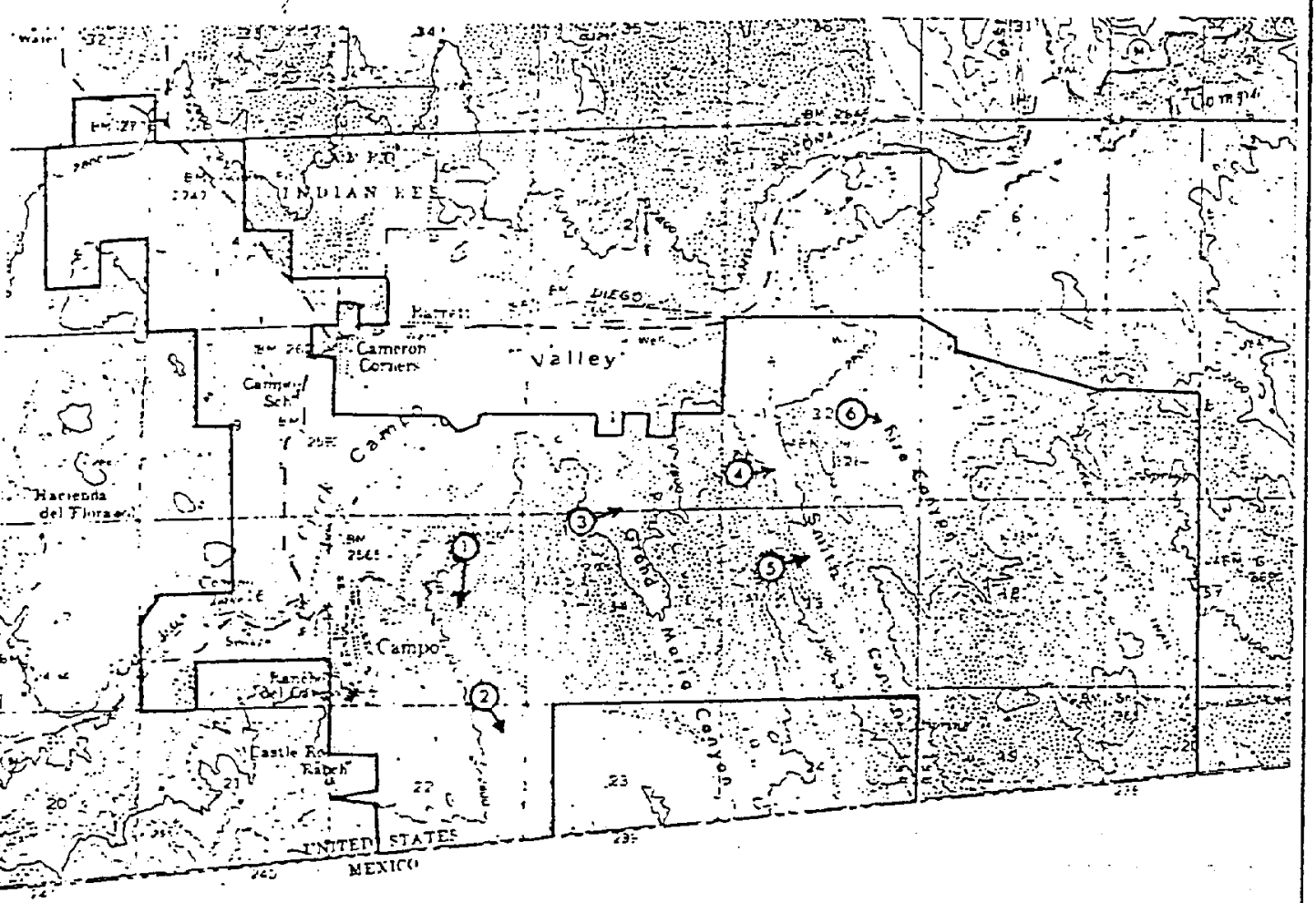
1. 28th Cavalry area
2. Drill field, rifle grenades
3. Rifle range
4. Infiltration course
5. 75mm firing positions
6. .50-caliber/37mm training area
7. Mounted parade grounds #2
8. Main post
9. Auxiliary 1 000-inch range
10. Dismounted parade grounds
11. Mounted obstacle course
12. Mounted parade grounds
13. Mounted pistol/saber course
14. Near the border pistol 6-8 ranges sub-machine guns
15. Mortar & hand grenade training area
16. Pistol range
17. Mock village
18. 75mm impact area

Information requested

Can any 11th Cavalry veteran of Camp Lockett identify the facility on which the machine guns and 81mm mortars were fired? Does anyone know for certain if the regiment possessed 31 mm antitank guns? The consensus so far is that the regiment did not.

From: The Camp Lockett Military Reservation
by James Hinds, 1984
Maintained by the Mountain
Empire Historical Society
Campo, California

RANGES & TRAINING AREAS



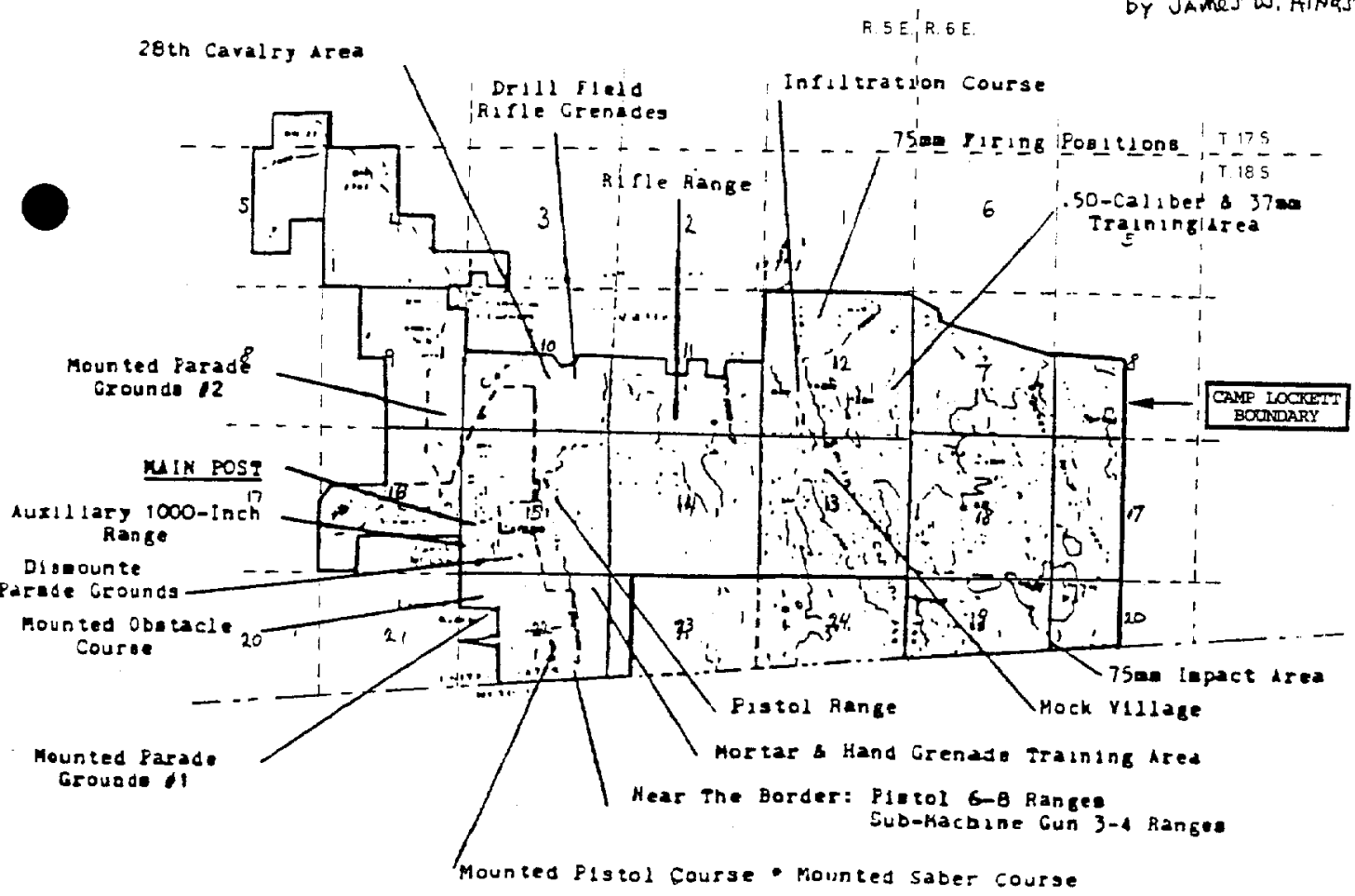
LOCATIONS

1. Pistol Range
2. Mortar And Hand Grenade Training Area
3. Rifle Range
4. Infiltration Course
5. Mock Village
6. .50 Caliber Machine Gun and 37mm Training Area

A complex From map

Camp Lockett
Campo, California
by James W. Hinds, 1992

CAMP LOCKETT MILITARY RESERVATION



601.22
Camp Lockett,
California.

7 May 1948

Director,
Bureau of Land Management,
Department of the Interior,
Washington, D.C.

Gentlemen:

Reference is made to letter from this Department dated 6 May 1947, advising that certain public lands in San Diego County, California, are no longer required by the Department of the Army. The lands were used in connection with Camp Lockett, pursuant to letter permit from your Department dated 5 October 1943, copy inclosed. Your file reference is Los Angeles 055512 "K" 1964592.

The lands are more particularly described as follows:

SW¼ SE¼ Sec. 12, Sec. 13, T 18 S R 5 E; Lot 6 SE¼, SE¼ NE¼, Sec. 7, SE¼ Sec 8, W½ Sec. 17, Lots 3 to 7, SE¼ NW¼, E½ SW¼, E½ Sec. 18, Lots 1 to 11, E½ NE¼ Sec. 19, and Lot 12 of SW¼ Sec. 20 T 18 S R 6 E, containing 2,358.09 acres, as shown outlined in red in drawing 7201-F-2 attached and marked EXHIBIT "A".

Supplementing the aforementioned letter dated 6 May 1947, you are advised that the lands have been examined and have been cleared of all explosives or explosive objects reasonably possible to detect by visual inspection. The area is recommended for any use for which the land is suited. No restoration of the land is deemed necessary.

Your cooperation in making this land available to this Department is appreciated.

FOR THE CHIEF OF ENGINEERS:

Sincerely yours,

2 Inclosures:
1.Map, Exhibit A
2.Ltr.5 Oct.43
Exhibit B

W.H.HASTINGS
Colonel, Corps of Engineers
Assistant Chief of Engineers for Real Estate

From:
Federal Records Center
Laguna Niguel
Camp Lockett
Real Estate records
②

Letter from Corps of Engineers to Bureau of Land Management 7 May 1948
Regarding 2,358.09 acres under Use Permit.
Letter states in third paragraph ..." you are advised that the lands have been examined and have been cleared of all explosives or explosive objects reasonably possible to detect by visual inspection."

APPENDIX H

INTERVIEWS

INTERVIEWS

Jim Hinds
Local Historian
Member of the Mountain Empire Historical Society
Home Address:
1815 Lilac Lane
Alpine, CA 91901
(619) 445-2654

Visited during week of local research for Camp Lockett. Has personal archives of historical documentation collected on camps, posts, and stations in California. Provided the significant portion of information on target ranges at the Camp Lockett Military Reservation.

Roger Challberg
Curator
Mountain Empire Historical Society
31130 Highway 94
P.O. Box 394
Campo, CA 91906
(619) 478-5768

Visited his archive collection of historical documentation on Camp Lockett. Gave an orientation of the cantonment area of Camp Lockett. Otherwise, Mr. Challberg highly recommended James Hinds for substantive information on target ranges.

Darrel V. Walraven
Senior Patrol Agent
Office Address:
U.S. Border Patrol Office
Campo Station
P.O. Box 68
Campo, CA 91906
(619) 478-5444

Acts as military liaison officer. Knows local property owners. Has patrolled the Camp Lockett Military Reservation for 13 years. Based on finding remains of targets and ordnance, as well as discussions with local citizens, including property owners, knows the location of target ranges on the Camp Lockett Military Reservation. Provided escort for the team during the site survey.

Scott Haselton
Maintenance Manager
Office Address:

U.S. Border Patrol Office
Campo Station
P.O. Box 68
Campo, CA 91906
(619) 478-5444

Interviewed in conference room of U.S. Border Patrol during the site survey. Reiterated the finding of ordnance (mostly small arms ammunition). Knew in general the locations of target ranges at Camp Lockett. Referred research team to Mickey Garland, local senior citizen.

Dave Sitchler
Agent
U.S. Border Patrol
Same Address and Phone as Above.

Stated on the phone the week prior to the site survey that he had found "live" .50 caliber ammunition during his time at the Campo Station.

Mickey Garland
Senior Citizen
Home Address:
2445 Cedar Drive
Campo, CA 91906
(619) 478-9363

Interviewed by telephone from Border Patrol Office. Remembers as a little girl being bit by dog and taken to the medical clinic at Camp Lockett for stitches. Informed the research team of "live" and "spent" rifle shells, as well as dog tags, bottles, and dishes in dumps at Lake Morena and a dump near Elinor Winter's home. She also referred to another dump elsewhere in a canyon where the troops trained but did not know the specific location.

Mike Dick
Property Owner
Building Maintenance Supervisor
Office Address:
Department of General Services
Facilities Services Division
East County Regional Center
250 East Main St. MS S288
El Cajon, CA 92020
(619) 441-4441

Owns property at the Camp Lockett Military Reservation (Parcel Number: 655-141-24; 10.4 acres in the north ½ of Section 12, Township 18 South, Range 5 East. During the

site survey, Mrs. Dick showed us remains of ordnance (small arms type) discovered on their property. She stated her son had climbed the nearby rocky hill separating two canyons and found holes in the rocks from target practice. Mr. Dick acknowledged an earlier visit by representatives of the Los Angeles District, U.S. Army Corps of Engineers, in the 1990s and the discovery of .30 caliber bullets, .50 caliber bullets, and shrapnel from a type of mortar or rocket. However, he did not provide permission for the research team to conduct a survey of his property.

Bob Maupin
Property Owner
Work Address:
Owner of Car Quest Store
2435 Alpine St.
Alpine, CA 91901
(619) 445-6242

Owns property at the Camp Lockett Military Reservation along the Mexican border (Parcel Number: 658-090-30-00; Tract 47, Section 13-18-6E). As a boy during the 1940s, Bob Maupin remembers a cavalry unit from Camp Lockett, which patrolled the border, setting-up bivouac and shooting the .45 caliber into a large tree for target practice on his property. Etched in the tree is the number "44". The cavalry unit left its shell casings. Referred research team to another property owner, Jim Kemp.

Jim Kemp
Property Owner
Cattle Rancher
Highway 94
Campo, CA 91906
(619) 478-5598

Contacted by telephone the week prior to the site survey. Owns and/or leases property (part of La Gloria Canyon) in the vicinity of an area that may have been part of a machine gun range and 75 mm target range. Provided second-hand information on discovery of ordnance at the former Camp Lockett Military Reservation. However, he did not have substantive information for the research team.

Susan Blackwell, Superintendent
Judy Matsson, Staff
Rancho Del Campo (Juvenile Detention) Center
957 Forest Gate Rd.
Campo, CA 91906
(619) 478-2728

Visited briefly during site survey. Obtained a copy of a map from Judy Matsson, who produced a map depicting the Camp Lockett cantonment area. Both were aware that Camp Lockett had weapons and munitions for the training of the cavalry in the past.

Bob Wernett
Property Owner
Caretaker of Del Rio Ranch (Smith Canyon)
Shockey Truck Trail
Campo, CA 91906
(619) 478-5621

Met during site survey. Has a Navy background. Surveyed property once designated as a mock village for training purposes by troops at Camp Lockett. Had knowledge of ordnance in the Smith Canyon. Knew of canyons in vicinity of Campo used as target ranges.

California National Guard Camp
3080 Buckman Springs Road
Lake Morena, CA
(619) 478-2243/5301

Spoke with First Sergeant of Engineer Unit (SFC Vida). The Engineer Unit keeps the road astride the Mexican border clear. Did not encounter ordnance to his knowledge.

Deputy Sheriff Williford
P.O. Box 7
Campo, CA 91906
(619) 478-5378
(619) 482-8056

One of approximately 5 resident deputies. Met Sheriff Williford briefly during local research week at Campo. He did not have knowledge of ordnance.

APPENDIX I

PRESENT SITE PHOTOGRAPHS

PRESENT SITE PHOTOGRAPHS

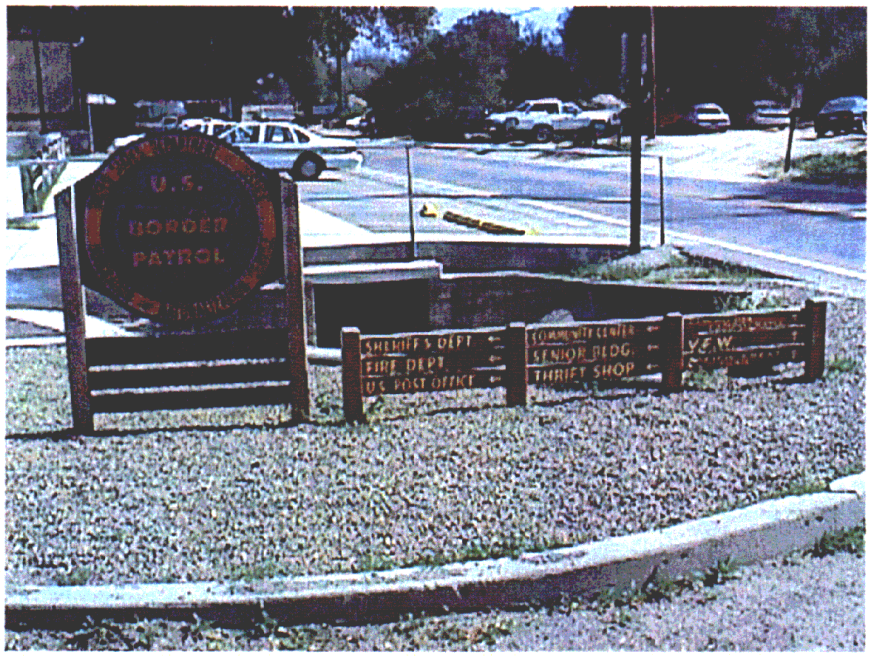


Photo No. 1
Entrance to Former Cantonment Area

Photo No. 2
Former Convalescent Home Area

Photo No. 3
Looking East at Former Cavalry Stables Area

Photo No. 4
Community Health Center

Photo No. 5
Border Patrol Station View From Forrest Gate

Photo No. 6
Rifle Range

Photo No. 7
Reported Drill Field/Rifle Grenade Site

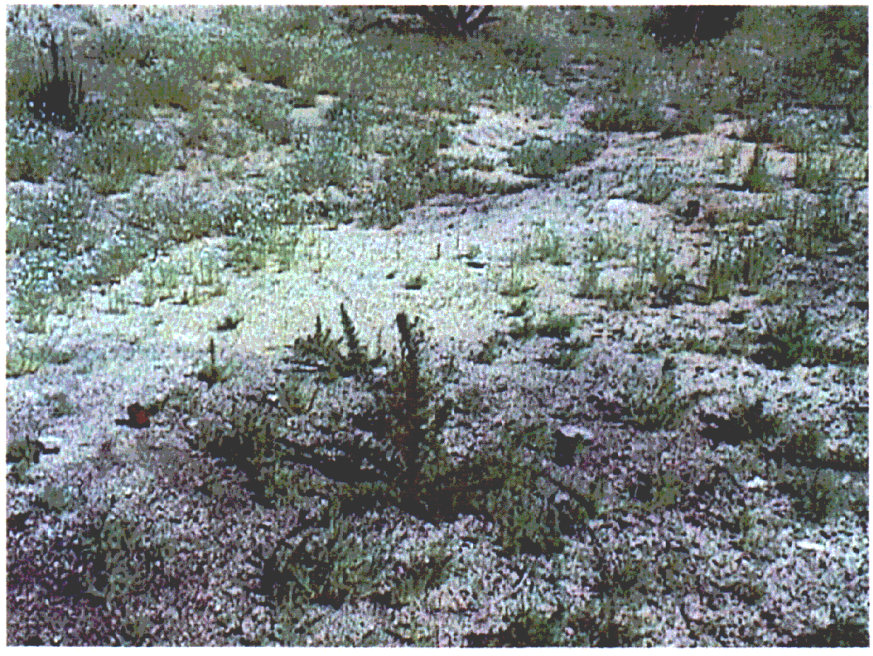


Photo No. 8
Rifle Range, Hand Grenade and Mortar Site

Photo No. 9
Rifle Grenade Nose Cap

Photo No 10
Grenade Spoon

Photo No. 11
Metal Shard; Mr. Mike Dick's Property

APPENDIX J

HISTORICAL PHOTOGRAPHS

(NOT USED)

APPENDIX K

HISTORICAL MAPS/DRAWINGS

(NOT USED)

APPENDIX L

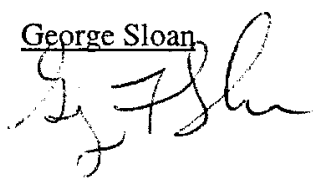
SITE SAFETY AND HEALTH PLAN

SITE SAFETY AND HEALTH PLAN (SSHP)
for
CAMP LOCKETT
CAMPO, CA
SITE # J09CA707800

The purpose of this site visit is to reconnoiter, document, and photograph areas on Camp Lockett suspected to be contaminated with unexploded ordnance and/or toxic chemical munitions.

PREPARED BY:	Randy Fraser
OFFICE	USACE, CEMVS-ED-P
ADDRESS	1222 Spruce St. St. Louis, Mo
PHONE	(314) 331-8268
DATE PREPARED	03-05-01

REVIEWED/APPROVED BY: George Sloan



NOTE This SSHP is to be used only for non-intrusive site visits and must be approved by safety prior to the start of the field visit. All team members must read, and comply with the SSHP, and attend the safety briefings. The Site Safety and Health Officer (SSHO) shall ensure the Safety Briefing Checklist and the SSHP acceptance form (Appendix C) is filled out prior to the start of the site visit.

A. SITE DESCRIPTION AND PREVIOUS INVESTIGATIONS

1. Site Description

a. Size Approximately7,112 Acres

b. Present Usage (check all that apply)

[ ] Military	[X] Recreational	[ ] Other (specify)
[X] Residential	[X] Commercial	Grazing
[ ] Natural Area	[X] Industrial	
[ ] Agricultural	[ ] Landfill	

[ ] Secured [ ] Active [ ] Unknown [X] Unsecured [ ] Inactive

2. Past Uses The Army acquired 7,112 acres for Camp Lockett between 1941 and 1945. The Army used the site initially for cavalry training and defense of the U.S. Mexican border. It was later used for a conbalescent hospital and POW camp. Improvements were of both semi-permanent and theater-of0operations type construction. Arms training areas included ranges for pistols, rifles, hand and rifle grenades, sub-machine guns, .50 caliber weapons, mortar, 37mm and 75mm weapons. All Camp Lockett property was disposed of between 1943 and 1950.

3. Surrounding Population (check all that apply)

[X] Rural	[X] Residential	[ ] Urban
[X] Commercial	[X] Industrial	[ ] Other (specify)

4. Ordnance/Explosives (OE) Potential The type of ordnance suspected includes small arms, grenades, rifle grenades, and artillery up to 75mm..

B. DESCRIPTION OF ON-SITE ACTIVITIES (check all that apply)

[X] Walk-through	[X] Drive-through	[ ] Other (specify)
[X] On-Path	[X] On-road	
[X] Off-Path	[X] Off-road	

C. SITE PERSONNEL AND RESPONSIBILITIES

1. Responsibilities

a. Project Manager The Corps of Engineers Project Manager (PM) is overall responsible for the site visit. He will assign a Team Leader, (most situations will be the PM). The PM will ensure that the SSHP is completed. Coordinates and executes the site visit.

b. Site Safety and Health Officer Individual designated to conduct safety, enforce the SSHP, conduct safety briefings, and ensure that the team leader can safely fulfill his objectives. The SSHO will maintain the safety gear, and monitor on-site operations. The SSHO is responsible for identifying, marking, and reporting any unexploded ordnance and explosives.

2. Team Members

NAME	POSITION	ADDRESS	PHONE
Dennis Gilmore	PM/Team Leader	USACE, St. Louis, MO	(314) 331-8108
Randy Fraser	SSHO/UXO Spec.	USACE, St. Louis, MO	(314) 331-8268
Fred Miller	Historian	USACE, St. Louis, MO	(314) 331-8792

D. OVERALL HAZARD EVALUATION (check one)

[ ] High [ ] Moderate [X] Low [ ] Unknown

This assessment was developed using the Site Investigation Hazard Analysis and Risk Assessment Code Matrix.

E. GENERAL PRECAUTIONS Prior to the on-site visit, all team members are required to read this SSHP and sign the form acknowledging that they have read and will comply with it. In addition, the SSHO shall hold a brief tailgate meeting in which site specific topics regarding the days activities will be discussed. If unanticipated hazardous conditions arise, team members are to stop work, leave the immediate area and notify the SSHO. The buddy system will be enforced at all times.

F. STANDARD OPERATION SAFETY PROCEDURES, ENGINEERING CONTROLS AND WORK PRACTICES

1. Site Rules/Prohibitions At any sign of unanticipated hazardous conditions, stop tasks, leave the immediate area and notify the SSHO. Smoking, eating and drinking allowed in designated areas only.

2. Material Handling Procedures Do not handle.

3. Drum Handling Procedures Do not handle.

4. Confined Space Entry An area identified as a Permit Required Confined space will not be entered. All confined spaces shall be considered permit required confined spaces until the pre-entry procedures demonstrate otherwise. Confined spaces may be entered without a written permit or attendant provided the space is determined not to be a permit required

confined space as specified in 29 CFR 1910.146.

5. **Electrical Protection** Overhead power lines, downed electrical wires and buried cables pose a danger of shock and electrocution. In addition, buildings may contain exposed wiring that may hold a potential load. Workers should avoid contact with any and all exposed wire and cables

6. **Spill Containment** N/A

7. **Excavation Safety** Do not enter trenches/excavations.

8. **Illumination** Site visits will be conducted during daylight hours only.

9. **Sanitation** Use existing sanitary facilities.

10. **Buddy System** Individuals will maintain constant contact with other personnel at all times. No one will work alone at any time during the site visit.

11. **Engineering Controls** N/A

12. **Insects** Wearing light colored clothing and tucking in the pant legs can reduce contact. In severely infested area it may be necessary to tape all openings. Apply repellents to both clothing and bare skin. Diethyltoluamide (DEET) is an active ingredient in many repellents, which are effective against ticks and other insects. Repellents containing DEET can be applied on exposed areas of skin and clothing. However, repellents containing permethrin should be used on only clothing. For more information on insect bites, refer to APPENDIX B of this SSHP.

13. **Poisonous Vegetation** Recognition and avoidance is the best protection. Cover all exposed skin. If it is known or suspected that an individual has been exposed, wash the effected area with soapy water.

14. **Inclement Weather** When there are warnings or indications of impending severe weather (heavy rains, strong winds, lightning, tornadoes, etc.), weather conditions shall be monitored and appropriate precautions taken to protect personnel and property from the effects of the severe weather.

15. **Hot Weather** In hot environments, cool drinking water shall be made available and workers shall be encouraged to frequently drink small amounts, e.g., one cup every 15 - 20 minutes; the water shall be kept reasonably cool. In those situations where heat stress may impact worker safety and health, work regimens shall be established. For more information on Heat Stress refer to APPENDIX A of this SSHP.

16. **Cold Weather** Cold injury (frost bite and hypothermia) and impaired ability to work are dangers at low temperatures and when the wind-chill factor is low. To guard against them;

wear appropriate clothing; have warm shelter readily available; carefully schedule work and rest periods, and monitor workers' physical conditions.

17. Off-Road Driving Ensure all emergency equipment is available with the vehicle, i.e., tire changing equipment. Drivers shall familiarize themselves with the procedures for engaging four-wheel drive systems before the need for added traction arises. Vehicles will not be driven into an environment that is unknown, such as deep water, or an unstable surface. Vehicles will not be driven into a suspected ordnance impact area.

18. Ordnance

a. General Information

(1) The cardinal principle to be observed involving explosives, ammunition, severe fire hazards or toxic materials is to limit the exposure to a minimum number of personnel, for the minimum amount of time, to a minimum amount of hazardous material consistent with a safe and efficient operation.

(2) The age or condition of an ordnance item does not decrease the effectiveness. Ordnance that has been exposed to the elements for extended periods of time become more sensitive to shock, movement, and friction, because the stability agent in the explosives may be degraded.

(3) When chemical agents may be present, further precautions are necessary. If the munitions item has green markings leave the area immediately, since it may contain a chemical filler.

(4) Consider ordnance that has been exposed to fire as extremely hazardous. Chemical and physical changes may have occurred to the contents which render it more sensitive than it was in its original state.

b. On-Site Instructions

(1) DO NOT TOUCH or MOVE any ordnance items regardless of the markings or apparent condition.

(2) DO NOT conduct a site visit during an electrical storm or an approaching electrical storm. If a storm approaches during the site visit leave the site immediately and seek shelter.

(3) DO NOT use a radio or cellular phone in the vicinity of a suspect ordnance item.

(4) DO NOT walk across an area where the ground cannot be seen.

(5) DO NOT drive a vehicle into a suspected OE area; use clearly marked lanes.

(6) DO NOT carry matches, cigarettes, lighters or other flame producing devices into a OE site.

(7) DO NOT rely on color code for positive identification of ordnance items or their contents.

(8) Approach ordnance items from the side; avoid approaching from the front or rear.

(9) Always assume ordnance items contain a live charge until it can be determined otherwise.

(10) Dead vegetation and animals may indicate potential chemical contamination. If a suspect area is encountered, personnel should leave the immediate area and evaluate the situation before continuing the site visit.

c. Specific Action Upon Locating Ordnance

(1) DO NOT touch, move or jar any ordnance item, regardless of its apparent condition.

(2) DO NOT be misled by markings on the ordnance item stating "practice", "dummy", or "inert". Practice munitions may contain an explosive charge used for spotting the point of impact. The item may also be mismarked.

(3) DO NOT roll the item over or scrape the item to read the markings.

(4) The location of any ordnance items found during site investigations should be clearly marked so it can be easily located and avoided.

(5) Reporting will be conducted in accordance with CEMVS-ED-P, Standard Operating procedure for Reporting Ordnance and Unexploded Ordnance (UXO), dated 19 January 1995.

19. Other (specify)

G. SITE CONTROL AND COMMUNICATIONS

1. Site Map Maintained on site by the PM or Safety Officer.

2. Site Work Zones N/A

3. **Buddy System** Individuals will maintain constant contact with other personnel at all times. No one will work alone at any time during the site visit.

4. **Communications**

a. On-Site Verbal communications will be used among team members.

b. Off-Site Communications shall be established on every site. Communications may be established by using a cellular phone or by public or private phone which may be readily accessible. (specify below)

[X] Cellular phone
[ ] Public/private phone (location_____
[ ] Other

c. Emergency Signals In the case of small groups, a verbal signal for emergencies will suffice. An emergency signal for large groups (i.e. air horn, whistle) should be incorporated at the discretion of the SSHO. (specify below)

[X] Verbal
[ ] Nonverbal (specify)

H. EMERGENCY RESPONSE Team members are to be alert to the dangers associated with the site at all times. If an unanticipated hazardous condition arises, stop work, evacuate the immediate area and notify the SSHO. A First Aid Kit and emergency eye wash (if applicable) will be located in the SSHO's field vehicle. If qualified persons (i.e. fire department, medical facility or physician) are not accessible within five minutes of the site at least two team members shall be qualified to administer first aid and CPR.

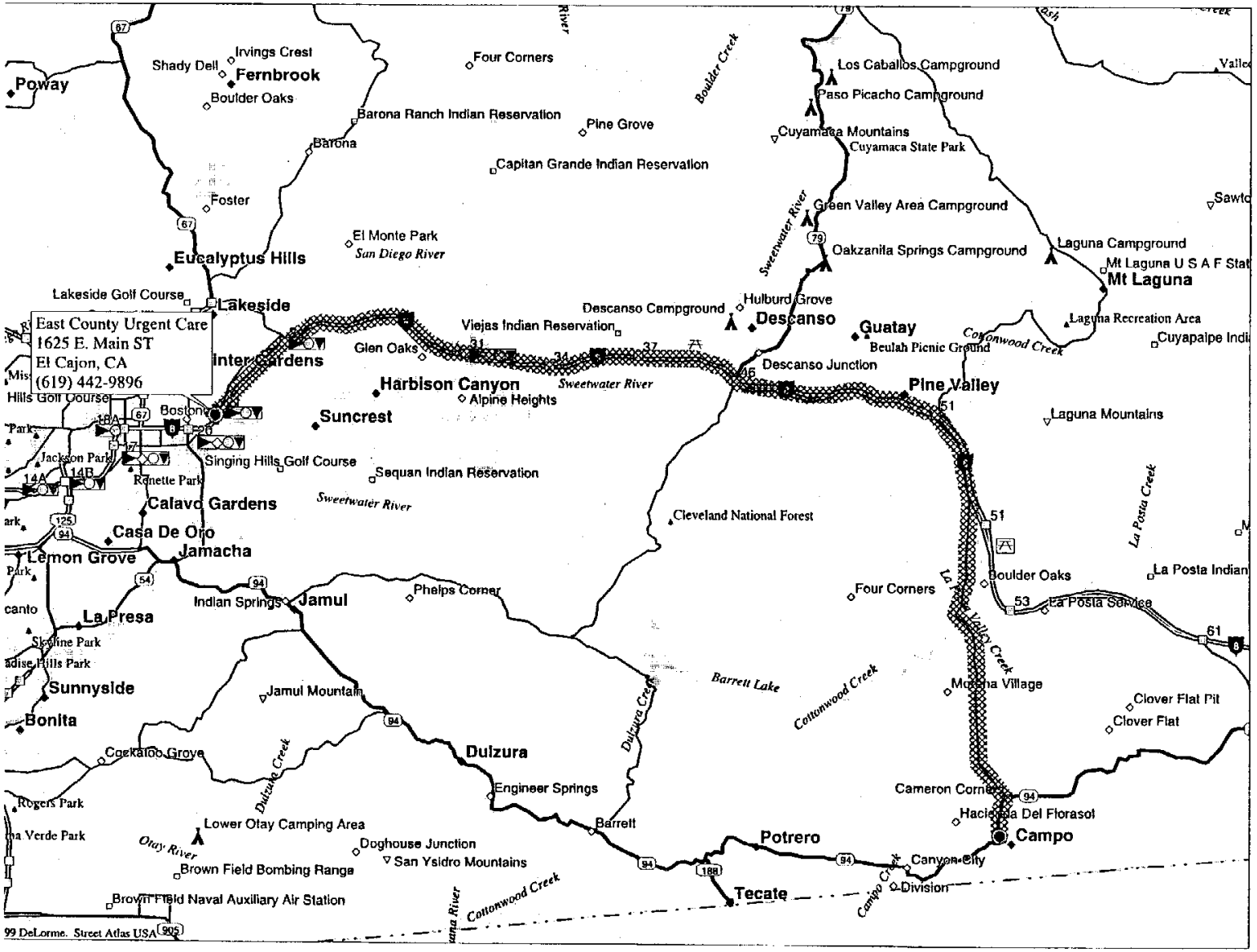
1. **Emergency/Important Telephone Numbers**

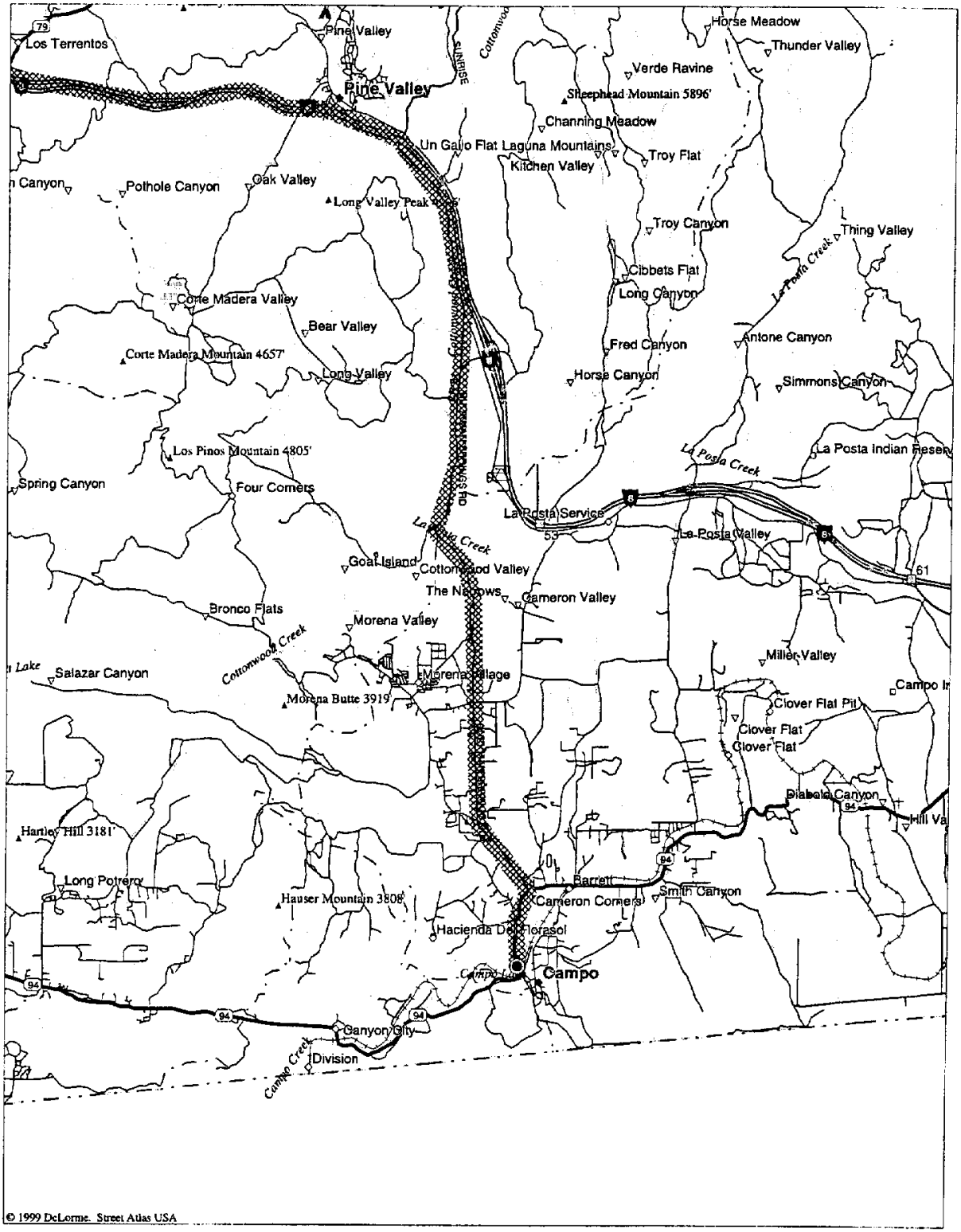
Emergency	911
San Diego County Sheriffs Department	(619) 478-5378
Stat Medical Transportation	(619) 440-2229
East County Urgent Care	(619) 442-9896
Pine Valley Fire Department	(619) 473-8445
3rd Ord Bn (EOD)	(206) 967-1972/3/4
710th Ord Co (EOD)	(619) 553-7291/8500
Huntsville Safety Office	(205) 895-1582/1579
Huntsville Safety (after hours)	(205) 895-1180
On-site cellular phone	(314) 606-4960
St. Louis Corps of Engineers	(314) 331-8036

2. **Hospital/Medical Facility Information**

Name:	East County Urgent Care
Address:	1625 E. Main #100 El Cajon, CA
Phone:	(619) 442-9896

Route to Medical Facility: Refer to the Site Map on following pages


East County Urgent Care
1625 E. Main ST
El Cajon, CA
(619) 442-9896
Poway
Shady Dell
Irvings Crest
Fernbrook
Boulder Oaks
Four Corners
Barona Ranch Indian Reservation
Barona
Pine Grove
Capitan Grande Indian Reservation
Foster
El Monte Park
San Diego River
Eucalyptus Hills
Lakeside Golf Course
Lakeside
Viejas Indian Reservation
Glen Oaks
Descanso Campground
Hulburd Grove
Descanso
Guatay
Beulah Picnic Ground
Descanso Junction
Los Caballos Campground
Paso Picacho Campground
Cuyamaca Mountains
Cuyamaca State Park
Green Valley Area Campground
Oakzanita Springs Campground
Laguna Campground
Mt Laguna
Laguna Recreation Area
Cuyapaipe Indi
Cottonwood Creek
Sweetwater River
Boulder Creek
Harbison Canyon
Alpine Heights
Suncrest
Singing Hills Golf Course
Sequan Indian Reservation
Jackson Park
Ronette Park
Calavo Gardens
Casa De Oro
Jamacha
Lemon Grove
La Presa
Indian Springs
Jamul
Phelps Corner
Cleveland National Forest
Pine Valley
Laguna Mountains
Four Corners
Boulder Oaks
La Posta Service
La Posta Indian
La Posta Creek
Sunnyside
Bonita
Jamul Mountain
Barrett Lake
Cottonwood Creek
Morena Village
Clover Flat Pit
Clover Flat
Cuyamaca Reservoir
Cockatoo Grove
Dulzura
Dulzura Creek
Engineer Springs
Barrett
Cameron Corner
Hacienda Del Florasol
Campo
Potrero
Canyon City
Division
Tecate
Lower Otay Camping Area
Otay River
Doghouse Junction
San Ysidro Mountains
Brown Field Bombing Range
Brown Field Naval Auxiliary Air Station
99 DeLorme. Street Atlas USA


Los Terrentos
Pine Valley
Pine Valley
SUNRISE
Cottonwood
Horse Meadow
Thunder Valley
Verde Ravine
Sheephead Mountain 5896'
Channing Meadow
Un Gallo Flat
Laguna Mountains
Troy Flat
Kitchen Valley
Pothole Canyon
Oak Valley
Long Valley Peak
Troy Canyon
Thing Valley
La Posta Creek
Cibbets Flat
Long Canyon
Corte Madera Valley
Bear Valley
Corte Madera Mountain 4657'
Long Valley
Fred Canyon
Antone Canyon
Horse Canyon
Simmons Canyon
Los Pinos Mountain 4805'
La Posta Indian Reserv
Spring Canyon
Four Corners
La Posta Creek
La Posta Service
La Posta Valley
Goat Island
Cottonwood Valley
The Narrows
Cameron Valley
Bronco Flats
Morena Valley
Cottonwood Creek
Miller Valley
Salazar Canyon
Morena Village
Morena Butte 3919'
Clover Flat Pit
Clover Flat
Clover Flat
Diabola Canyon
Hill Va
Hartley Hill 3181'
Long Potrero
Barrett
Cameron Corners
Smith Canyon
Hauser Mountain 3808'
Hacienda Del Torasol
Campo
Campo Creek
Canyon City
Division
Campo Creek
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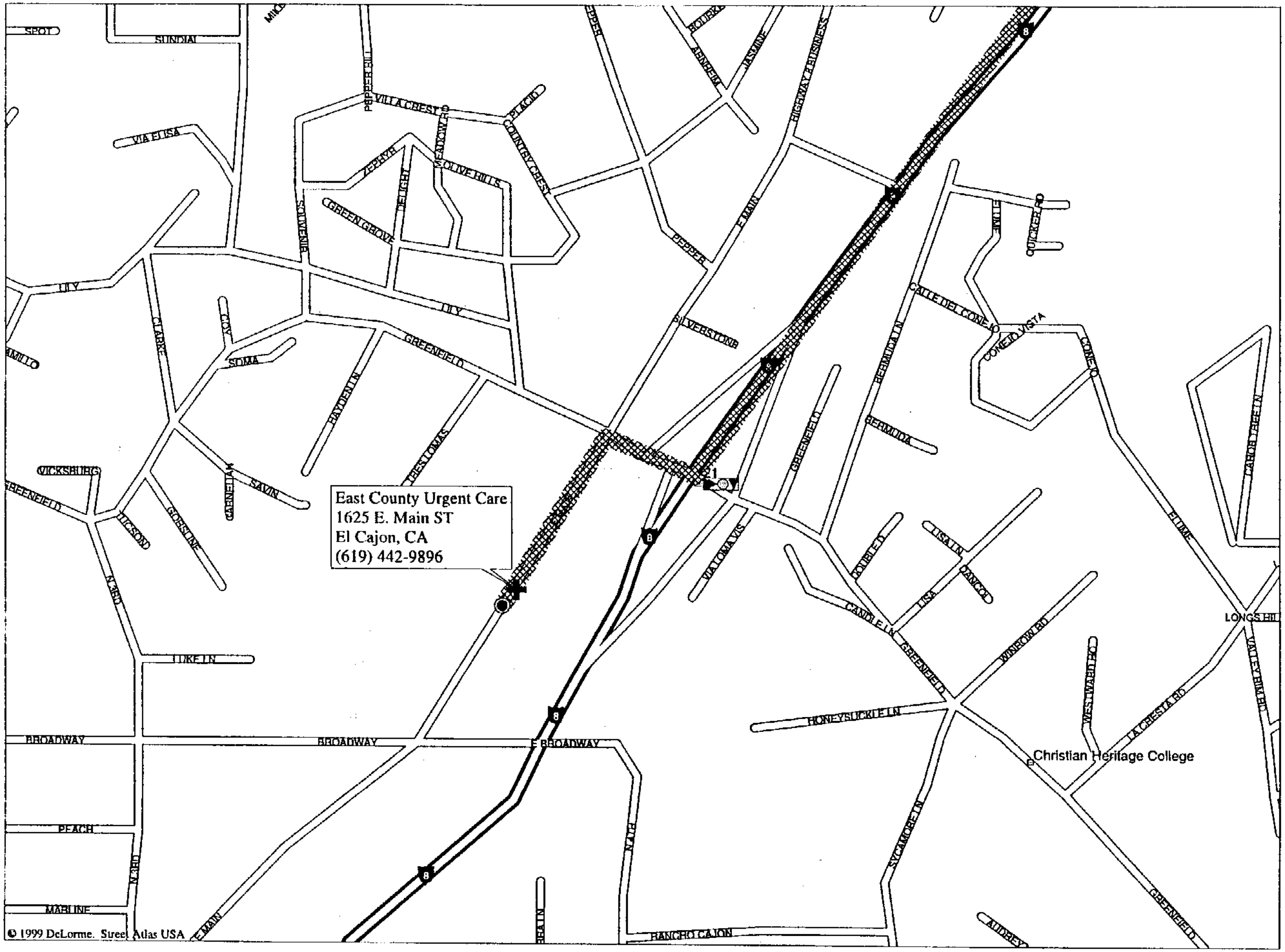
East County Urgent Care
1625 E. Main ST
El Cajon, CA
(619) 442-9896
Christian Heritage College
SUNDIAL
VIA ELISA
VILLA CREST
OLIVE HILLS
GREEN GROVE
LILY
CLARKE
SOMA
GREENFIELD
HAYDEN LN
VICKSBURG
TUCSON
GORSLINE
SAVIN
N 3RD
LUKE LN
BROADWAY
E BROADWAY
PEACH
MARLINE
E MAIN
PEPPER
SILVERSTONE
CALLE DEL CONEJO
CONEJO VISTA
BERMUDA LN
BERMUDA
LISA LN
CANDLE LN
WINDROW RD
HONEYSUCKLE LN
SYCAMORE LN
WESTWARD RD
LA CRESTA RD
VALLEY RIM RD
LONGS HILL
FLUME
RANCHO CAJON
AUDREY
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I. MONITORING EQUIPMENT AND PROCEDURES

1. Exposure Monitoring For non-intrusive on-site activities such as site visits, air monitoring is typically not required. However, if the site situation dictates the need for monitoring, complete the following information on a separate page and attach the page to the SSHP.

a. Monitoring Equipment To Be Utilized N/A

b. Equipment Calibration Results N/A

c. Action Levels N/A

2. Heat/ Cold Stress Monitoring

a. Heat Stress monitoring criteria published in Chapter 8 of the NIOSH/OSHA/USCG/EPA "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities" shall be followed.

b. Cold Stress monitoring shall be conducted in accordance with the most current published American Conference of Governmental Industrial Hygienists (ACGIH) cold stress standard.

J. PERSONAL PROTECTIVE EQUIPMENT Typically, for non-intrusive site visits, Level D is required. If a higher level of protection is to be used initially or as contingency, a brief discussion will be attached. At a minimum personnel shall wear clothing suitable for the weather and work condition. The minimum for fieldwork shall be short sleeved shirt, long trousers, and leather or other protective work shoes or boots. If a higher level of protection is to be used initially or as contingency, a brief discussion will be attached.

1. Footwear Footwear providing protection against puncture shall meet the applicable requirements as stated in EM 385-1-1, paragraph 05.A.07. All activities which personnel are potentially exposed to foot hazards will be identified and documented in a hazard analysis.

2. Hand Protection Persons involved in activities which subject the hands to injury (e.g., cuts, abrasions, punctures, burns) shall use leather gloves.

3. Head Protection Hardhats shall be worn when personnel are subject to potential head injury. The identification and analysis of head hazards will be documented in a hazard analysis.

4. Eye Protection Personnel will wear eye protection when activities present potential injuries to the eyes. All eye protection equipment shall meet the requirements as stated in EM 385-1-1, paragraph 05.B.

K. DECONTAMINATION PROCEDURES Decontamination procedures are not anticipated

for this site investigation. Team members are cautioned not to walk, kneel or sit on any surface with potential leaks, spills or contamination.

L. TRAINING All site personnel shall have completed the training required by EM 385-1-1 and 29 CFR 1910.120 (e). The U.S. Army Corps of Engineer (USACE) Project Manager shall ensure, and the SSHO shall verify, that all on-site personnel have completed appropriate training. Additionally, the SSHO shall inform personnel before entering, of any potential site-specific hazards and procedures.

M. MEDICAL SURVEILLANCE PROGRAM The USACE Project Manager shall ensure, and the SSHO shall verify, that all on-site personnel are on the Medical Surveillance Program meeting the requirements of 29 CFR 1910.120, and ANZI Z-88.2, as appropriate, depending on the PPE and site specific tasks.

NAME	HAZWOPER (ref)	PROVIDER	MEDICAL DATE
Dennis Gilmore	12-00	Corps of Engrs.	01-99
Randy Fraser	10-00	Corps of Engrs.	07-00
Fred Miller	12-00	Corps of Engrs.	08-99

N. LOGS, REPORTS AND RECORD KEEPING Site logs are maintained by the Project Manager and SSHO. This is to include historical data, personnel authorized to visit the site, all records, standard operating procedures, air monitoring logs and the SSHP.

O. GENERAL The number of personnel visiting the site shall be a limited to a minimum of two, maximum of eight. The more personnel on-site, greater the potential for an accident. The SSHO may modify this SSHP if site conditions warrant it and without risking the safety and health of the team members. This modification will be coordinated with the team members. The SSHO shall notify Corps of Engineers Safety Office in Huntsville, AL. of the change as the situation allows.

APPENDIX A

HEAT- RELATED INJURIES

Once the signals of a heat-related illness begin to appear, the victim's condition can quickly get worse. A heat related illness can result in death. If you see any of the signals of sudden illness, and the victim has been exposed to extremes of heat, suspect a heat-related illness.

People at risk for heat-related illness include those who work or exercise outdoors, elderly people, young children, and people with health problems. Also at risk are those who have had a heat-related illness in the past, those with medical conditions that cause poor blood circulation, and those who take medications to get rid of water from the body (diuretics).

People usually try to get out of extreme heat before they begin to feel ill. However, some people do not or can not. Those that work outdoors often keep working even after they begin to feel ill. Many times, they might not even recognize that they are in danger of becoming ill.

Heat-cramps, heat-exhaustion, and heat-stroke, are conditions caused by overexposure to heat. You can help prevent heat-stress emergencies by recognizing and properly treating symptoms. Below is a quick reference guide to heat-related emergencies:

HEAT CRAMPS Heat cramps are the least severe, and often are the first signals that the body is having trouble with the heat. *Symptoms* include: Muscle twitching; painful spasms in the legs, arms or abdomen.

WHAT TO DO:

- Have the individual rest in a cool place.
- Give cool water or a commercially available sports drink.
- lightly stretch the muscle and gently massage the area.

HEAT EXHAUSTION Heat exhaustion is a more severe condition than heat cramps. *Symptoms:* cool, moist, pale, or flushed skin, headache, nausea, dizziness, weakness, and exhaustion.

HEAT STROKE Heat stroke is the least common but most severe heat emergency. It most often occurs when people ignore the signals of heat exhaustion. Heat stroke develops when the body systems are overwhelmed by heat and begin to stop functioning. **Heat stroke is a serious medical emergency.** *Symptoms* include: red, hot, dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing.

WHAT TO DO: When you recognize a heat-related illness in its early stages, you can usually reverse it.

- Get the victim out of the heat.
- Loosen any tight clothing and apply cool, wet cloths, such as towels or sheets.
- If the victim is conscious, give cool water to drink. Do not let the conscious victim drink too quickly. Give about 1 glass (4 ounces) of water every 15 minutes.
- Let the victim rest in a comfortable position, and watch carefully for changes in his or her condition. The victim should not resume normal activities the same day.

- **Refusing water, vomiting, and changes in consciousness mean that the victim's condition is getting worse. Call for an ambulance immediately if you have not already done so.**

- If the victim vomits, stop giving fluids and position them on their side.
- Watch for signals of breathing problems.
- Keep the victim lying down and continue to cool the body any way you can. If you have ice packs or cold packs, place them on each of the victim's wrists and ankles, on the groin, in each armpit, and on the neck to cool the large blood vessels.

APPENDIX B

BITES AND STINGS

Scorpions, Bees and Spiders

Bee stings are painful, but rarely fatal. Some people, however have a severe allergic reaction to an insect sting. This allergic reaction may result in a breathing emergency. If someone is stung by an insect, remove the stinger. Scrape it away with from the skin with your fingernail or plastic car, such as a credit card, or use tweezers. If you use the tweezers, grasp the stinger, not the venom sac. Wash the site with soap and water. Cover it to keep it clean. Apply a cold pack to the area to reduce the pain and swelling. Watch the victim for signals of an allergic reaction.

Scorpions live in dry regions of the southwestern United States and Mexico. They live under rocks, logs, and the bark of certain trees and are most active at night. Only a few species of scorpions have a sting that can cause death.

Spiders; there are also only two spiders in the United States whose bite can make you seriously sick or be fatal. These are the black widow spider and the brown recluse. The black widow is black with a reddish hourglass shape on the underside of its body. The brown recluse is light brown with a darker brown, violin-shaped marking on the top of its body. Both spiders prefer dark, out of the way places. Often, the victim will not know that he or she has been bitten until he or she starts to feel ill or notices a bite mark or swelling.

Symptoms: include nausea and vomiting, difficulty breathing or swallowing, sweating and salivating much more than normal, severe pain in the sting or bite area, a mark indicating a possible bite or sting, and swelling of the area.

First Aid: if someone has been stung by a scorpion or bitten by a spider he or she thinks is a black widow or brown recluse, wash the wound, apply a cold pack to the site, and get medical help immediately.

Lyme Disease

Lyme Disease is an illness that people get from the bite of an infected tick. Lyme disease is affecting a growing number of people in the United States. Everyone should take precautions against it. Not all ticks carry Lyme disease. Lyme disease is spread mainly by a type of tick that commonly attaches itself to field mice
and deer. It is sometimes called a deer tick. This tick is found around beaches and in wooded and grassy areas. Like all ticks, it attaches itself to any warm-blooded animal that brushes by. Deer ticks are very tiny and difficult to see. They are much smaller than the common dog tick or wood tick. They can be as small as a poppy seed or the head of a pin. Adult deer ticks are only as large as a grape seed.

Symptoms: The first signal of infection may appear a few days or a few weeks after a tick bite. Typically, a rash starts as a small red area at the site of the bite. It may spread up to 7 inches across. In fair-skinned people the center is lighter in color and the outer edges are red and raised. This sometimes gives the rash a bull's-eye appearance. In dark skinned people the area may look black and blue, like a bruise.

Other symptoms include fever, headache, weakness, and joint and muscle pain similar to the pain of "flu". These symptoms might develop slowly and might not occur at the same time as a rash. In fact you can have Lyme disease without developing a rash.

First Aid: If you find a tick, remove it by pulling steadily and firmly. Grasp the tick with fine-tipped tweezers, as close to the skin as possible, and pull slowly. If you do not have tweezers, use glove, plastic wrap, or a piece of paper to protect you finger. If you use your bare fingers, wash your hands immediately. Do not try to burn a tick or use other home remedies, like coating the tick with Vaseline or nail polish or picking it with a pin. Once the tick is removed, wash the area with soap and water. If available, apply antiseptic or antibiotic ointment. If you can not remove the tick or parts of the tick stay in your skin, obtain medical care. If a rash or flu like symptoms develop, seek medical attention.

APPENDIX C

SSHP ACCEPTANCE FORM

ABBREVIATED SITE SAFETY AND HEALTH PLAN

I have read and agree to abide by the contents of the Site Safety and Health Plan.

NAME	OFFICE	SIGNATURE	DATE
Dennis Gilmore	CEMVS-ED-P		6 MAR 01
Randy Fraser	CEMVS-ED-P		3/6/01
Fred Miller	CEMVS-ED-P		3/6/01

SITE SURVEY SAFETY BRIEFING

(Check subjects discussed)Date 3/28/01

SITE SPECIFIC INFORMATION

- ✓ Purpose of Visit
- ✓ Identify Key Site Personnel
- ✓ Site Description/Past Use
- ✓ Results of Previous studies
- ✓ Potential Site Hazards
- ✓ OE Safety Procedures
- ✓ Site SOP
- ✓ Site Control and Communications
- ✓ Emergency Response
  - (✓) Location of First aid Kit
  - (✓) Emergency Phone Numbers
  - (✓) Map to Facility
- ✓ PPE
- ✓ Weather Precautions
  - (✓) Cold/Heat
  - ( ) Severe Weather

Safety Briefing Attendance

All team members and any accompanying personnel will be briefed and sign this form.

Name (Print)	Organization	Signature
Dennis Gilmore	CEMVS-ED-P	
Randy Fraser	CEMVS-ED-P	
Fred Miller	CEMVS-ED-P	

APPENDIX M

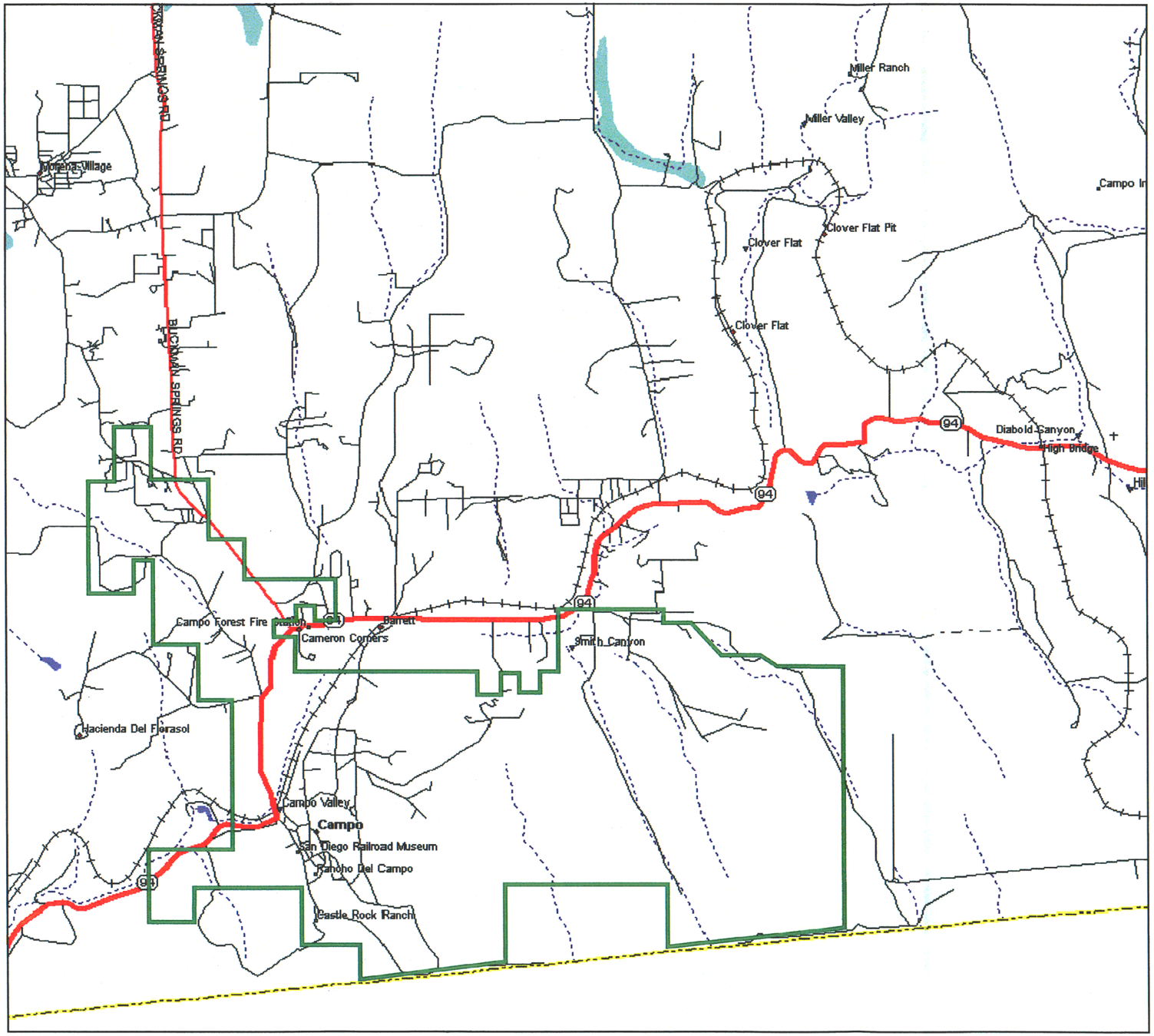
REPORT DISTRIBUTION LIST

APPENDIX M

REPORT DISTRIBUTION LIST

Addressee	No. Copies
Commander, U.S. Army Engineering and Support Center Huntsville, ATTN: CEHNC-ED-SY-O (D. MARDIS) P.O. Box 1600 Huntsville, Alabama 35807-4301	2
Commander, U.S. Army Engineer District, Los Angeles ATTN: CESPL-ED-MI P. O. Box 2711 Los Angeles, CA 90053-2325	1
Project Manager Chemical Demilitarization, Non-Stockpile ATTN: SFAE-CD-NM Aberdeen Proving Ground, Maryland 21010-5401	1
Commander, U.S. Army Soldier, Biological, and Chemical Command ATTN: AMSSB-CIH, Bldg. E5027 Aberdeen Proving Ground, MD 21010-5424	1
U.S. Army Technical Center for Explosives Safety ATTN: SIOAC-ESM Savanna, IL 61074-9639	1

REPORT PLATES



LEGEND

APPROXIMATE SITE LOCATION

N

NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
SITE VICINITY MAP

PROJ. DATE: 2001	DATE OF MAP: 2001	PLATE NO. 1
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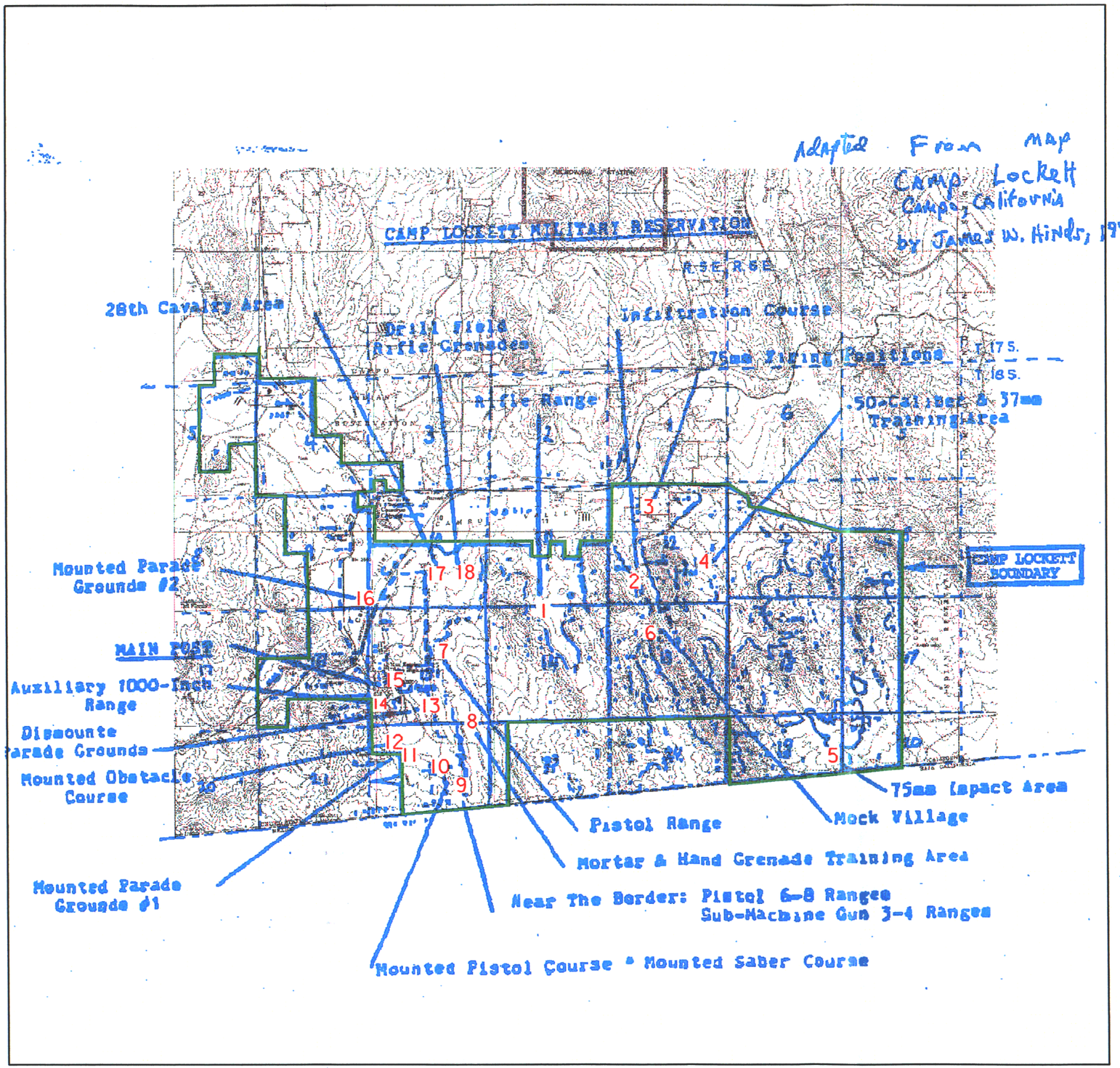

KEY TO FEATURES:

FEATURE NUMBER	FEATURE DESCRIPTION
1	RIFLE RANGE
2	INFILTRATION COURSE
3	75mm FIRING POSITIONS
4	.50 CAL & 37mm TRAINING AREA
5	75mm IMPACT AREA
6	MOCK VILLAGE
7	PISTOL RANGE
8	MORTAR & HAND GRENADE TRAINING AREA
9	NEAR THE BORDER: PISTOL 6-8 RANGES, SUB-MACHINE GUN 3-4 RANGES
10	MOUNTED PISTOL COURSE & MOUNTED SABER COURSE
11	MOUNTED PARADE GROUND #1
12	MOUNTED OBSTACLE COURSE
13	DISMOUNTED PARADE GROUNDS
14	AUXILIARY 1,000-INCH RANGE
15	MAIN POST
16	MOUNTED PARADE GROUNDS #2
17	28TH CAVALRY AREA
18	DRILL FIELD RIFLE GRENADES

LEGEND

SITE LOCATION

FEATURE LOCATION TAKEN FROM 1992 HINDS DRAWING

0 5,000 10,000

APPROXIMATE SCALE IN FEET

N

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
SITE MAP

PROJ. DATE: APR 2001	DATE OF MAPS: 1992, 1997	PLATE NO. 2
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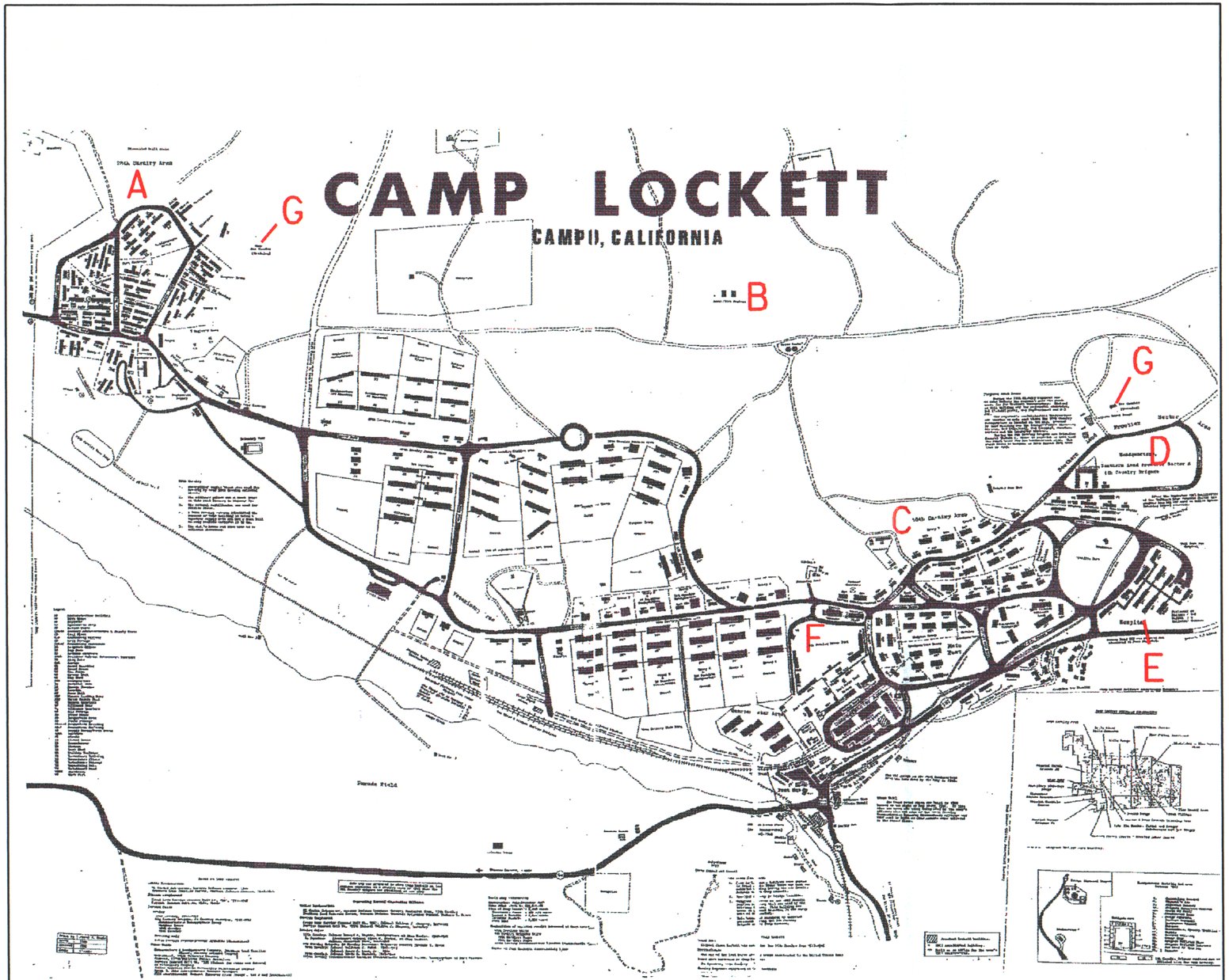

KEY TO FEATURES:

FEATURE NUMBER	FEATURE DESCRIPTION
A	28TH CAVALRY AREA
B	AMMUNITION BUNKERS
C	10TH CAVALRY AREA
D	HEADQUARTERS, SOUTHERN LAND FRONTIER SECTOR & 4TH CAVALRY BRIGADE
E	HOSPITAL
F	10TH CAVALRY MOTOR POOL
G	GAS CHAMBERS (2)

LEGEND

FEATURE LOCATION

0 850 1,700

APPROXIMATE SCALE IN FEET

N

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
CANTONMENT AREA

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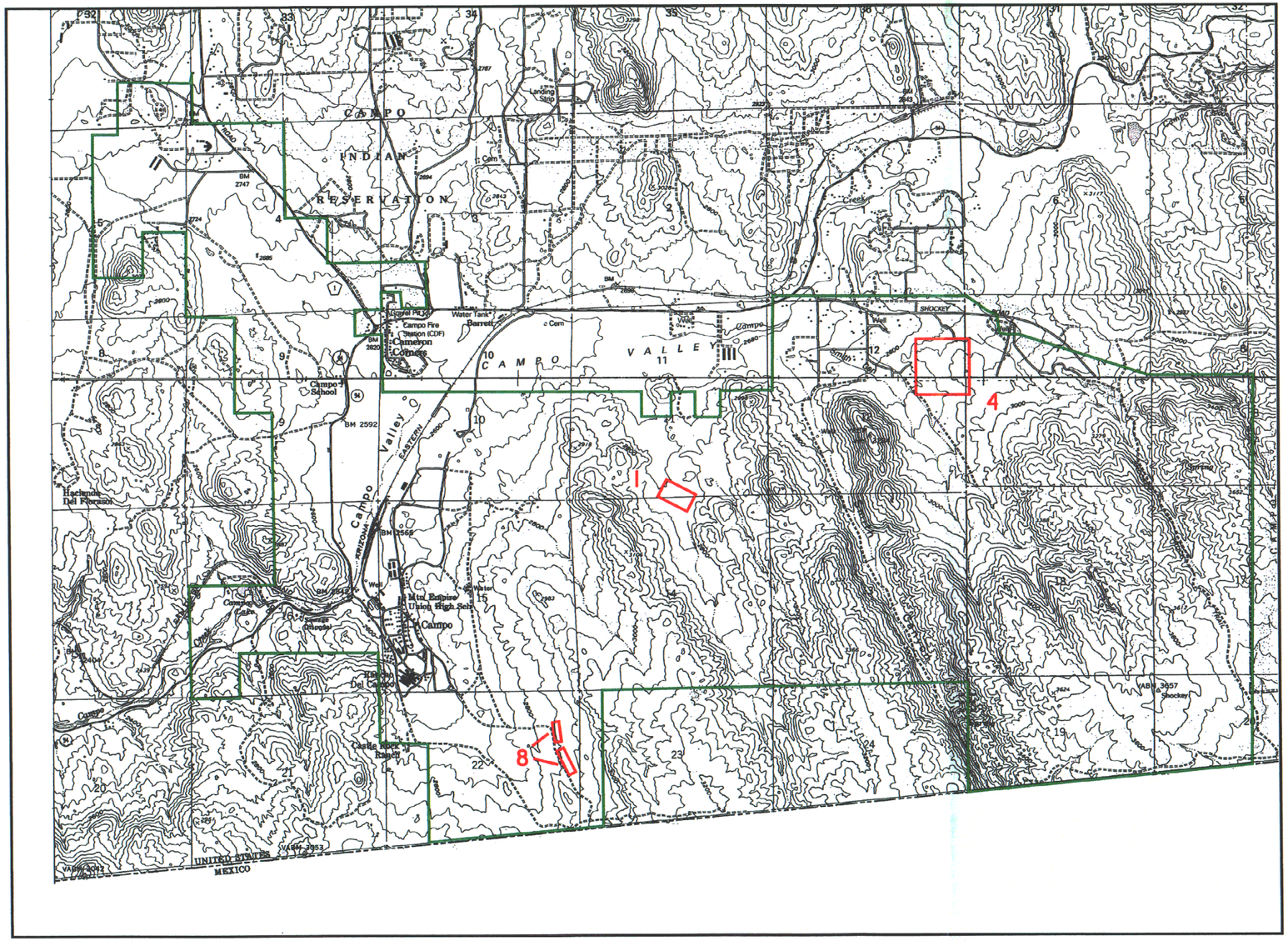

KEY TO FEATURES:

FEATURE NUMBER	FEATURE DESCRIPTION	OWNER
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4	.50-CALIBER & 37MM TRAINING AREA	MR. MIKE DICK
8	PISTOL RANGE, MORTAR AND HAND GRENADE RANGE	CLEOPHAS & MAXINE BARNETT

LEGEND

SITE LOCATION

FEATURE LOCATION

0 3,500 7,000

APPROXIMATE SCALE IN FEET

N

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
FINDINGS MAP

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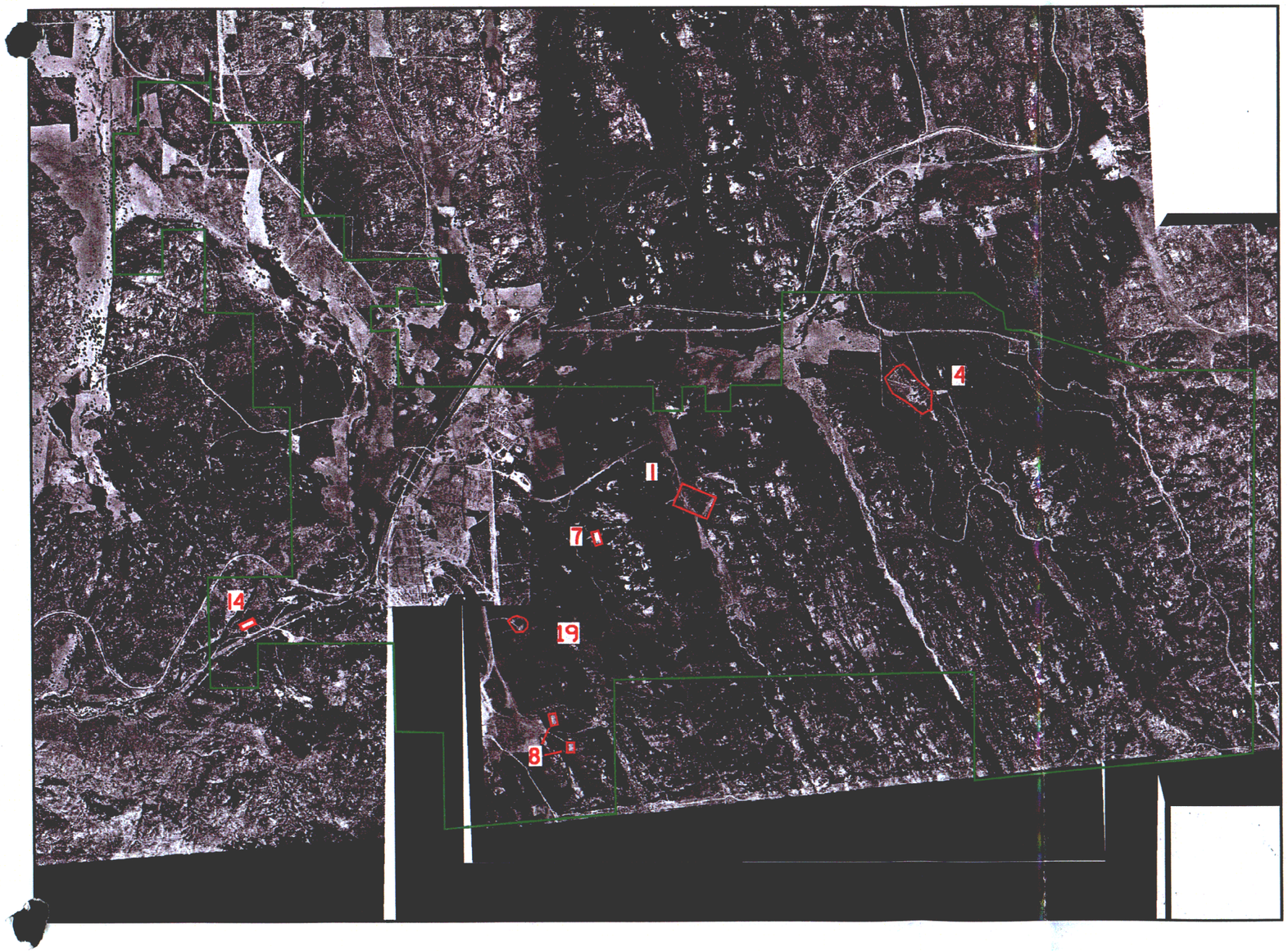


KEY TO FEATURES:

FEATURE NUMBER	FEATURE DESCRIPTION
1	RIFLE RANGE
4	.50-CAL. & 37MM TRAINING AREA
7	POSSIBLE PISTOL RANGE
8	PISTOL RANGE, MORTAR AND HAND GRENADE RANGE
14	POSSIBLE 1,000-INCH RANGE
19	POSSIBLE AMMUNITION BUNKERS

LEGEND

SITE LOCATION

FEATURE LOCATION

0 3,500 7,000

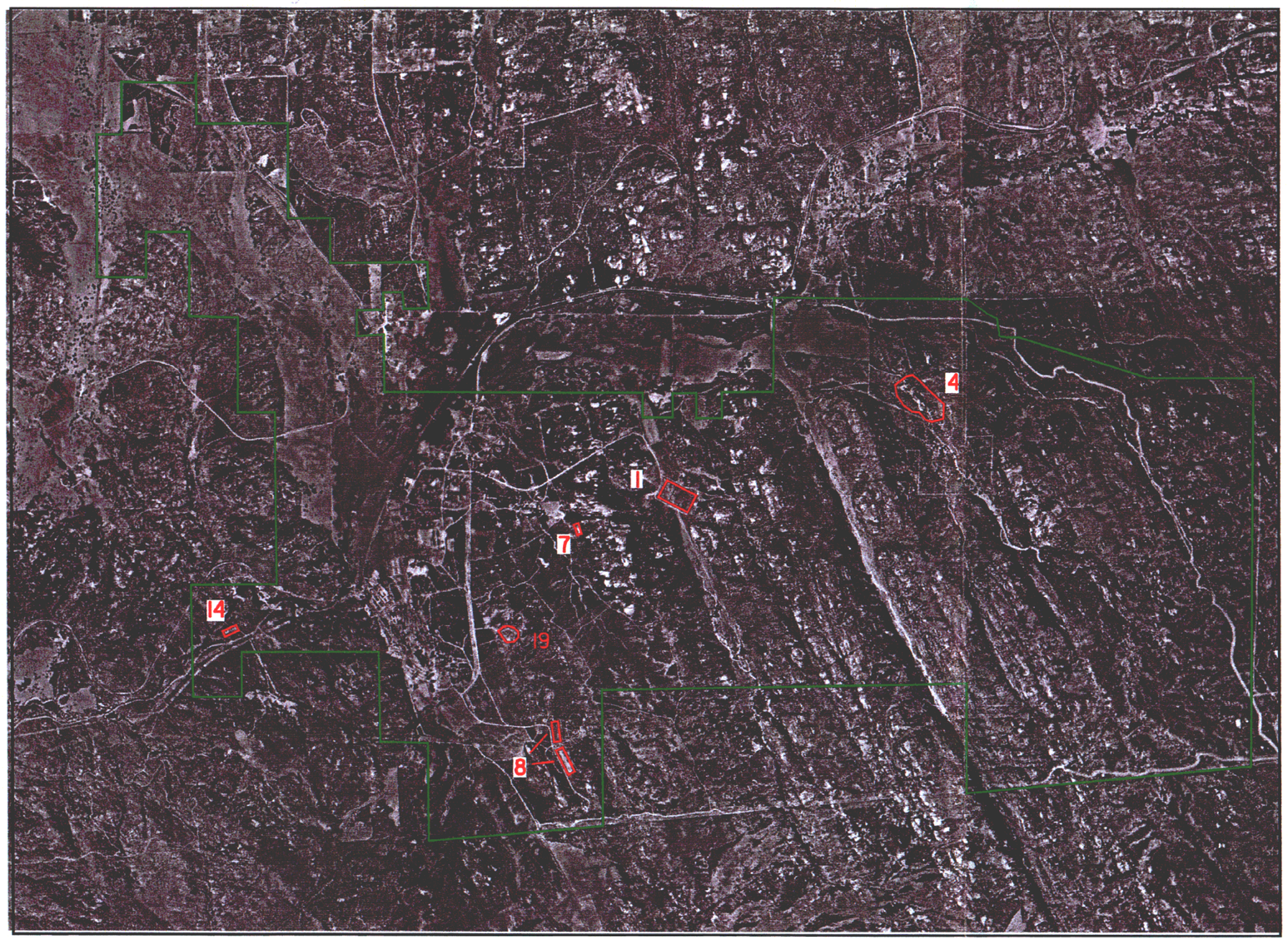
APPROXIMATE SCALE IN FEET

N

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
1943 AERIAL PHOTO

PROJ. DATE: APR 2001	DATE OF PHOTO: 1943	PLATE NO. 5
16-MAY-2001 11:51	n:\oew\oew2001\california\camp lockett\photo\Plate5.dgn	



KEY TO FEATURES:

FEATURE NUMBER	FEATURE DESCRIPTION
1	RIFLE RANGE
4	.50-CAL. & 37MM TRAINING AREA
7	POSSIBLE PISTOL RANGE
8	PISTOL RANGE, MORTAR AND HAND GRENADE RANGE
14	POSSIBLE 1,000-INCH RANGE
19	POSSIBLE AMMUNITION BUNKERS

LEGEND

SITE LOCATION

FEATURE LOCATION

0 3,500 7,000

APPROXIMATE SCALE IN FEET

N

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

CAMP LOCKETT
CAMPO, CALIFORNIA
SAN DIEGO COUNTY
DERP-FUDS * J09CA707801
1954 AERIAL PHOTO

PROJ. DATE: APR 2001	DATE OF PHOTO: 1954	PLATE NO. 6
16-MAY-2001 11:57	n:\oew\oew2001\california\camp lockett\photo\Plate6.dgn	