



JOINT POW/MIA ACCOUNTING COMMAND

310 WORCHESTER AVENUE
JOINT BASE PEARL HARBOR-HICKAM, HI 96853-553

17 January 2015

MEMORANDUM FOR THE RECORD

Subj: IDENTIFICATION OF CIL 2014-125-I-01

1. Background and Acquisition

a. On 8 December 1941 Japanese forces invaded the Philippine Islands. Intense fighting ensued until 6 May 1942 when the U.S.-occupied fortress of Corregidor fell, effectively placing the country under the control of Japanese forces. Thousands of U.S. and Filipino soldiers were taken prisoner, including many that were forced to endure the infamous Bataan Death March en route to the Japanese-operated POW camp at Cabanatuan on the island of Luzon, Philippines. Almost 2,800 of these POWs perished in this camp, including 13 American servicemen and one American civilian who died on 19 November 1942 from malnutrition and medical neglect while in the camp hospital. These men were buried in Common Grave 717 in the camp cemetery. Records indicate that among these 14 men was Private Arthur H. KELDER, who had been reported as captured on, or subsequent to, 7 May 1942.

b. Following the war, from December 1945 through March 1946, American Graves Registration Service (AGRS) personnel exhumed the Cabanatuan cemetery and relocated the remains to a temporary U.S. military cemetery that had been established near Manila. In late 1947 and early 1948, AGRS personnel re-exhumed the remains from the Manila cemetery and transferred them to a mausoleum established at Manila. While at the mausoleum, AGRS examined the remains in an attempt to identify each individual. In some cases, the identification attempts stretched over several years; however, the chaotic manner in which the remains had been buried, exhumed, reburied, and re-exhumed resulted in a level of commingling that could not be resolved given the forensic science available at the time. The remains that could not be individually identified ultimately were reburied as Unknown Remains at the permanent American Battle Monuments Commission cemetery at Fort McKinley in Manila. Among these Unknown Remains were ten individuals originally buried in the Cabanatuan cemetery in Common Grave 717. These ten individuals, initially designated as Unknown Remains X-812, X-814, X-815, X-816, X-818, X-820, X-821, X-822, X-823, and X-824, and subsequently renumbered as X-4849 through X-4858, were buried in ten separate graves.

c. In 2014 the CIL received permission from the Secretary of the Army to exhume the ten graves associated with the Cabanatuan Common Grave 717. On 15 August 2014 personnel from the U.S. Army mortuary in South Korea exhumed the remains and transported them to the CIL, where they were accessioned on 28 August 2014 as CIL 2014-122 through CIL 2014-131.

d. Preliminary analysis of the remains contained in the ten accessions confirmed them to be moderately commingled, requiring extensive use of DNA analysis. One hundred and fifty-one bone and tooth samples taken from these cases were submitted to the Armed Forces DNA

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Identification Laboratory (AFDIL) for mitochondrial DNA (mtDNA) and Y-chromosome Short Tandem Repeat (Y-STR) DNA testing.

2. Summary of Analysis

a. Three metal tags were found inside the casket associated with the CIL 2014-125 accession. Two of the tags were embossed with the designations X-816 and X-4858; the third tag was embossed X-816. These tags correlate the remains to the Unknown X-816/X-4858 remains recovered from the Cabanatuan Common Grave 717.

b. The AFDIL reports that the 151 samples submitted from the ten accessions yielded results indicating the presence of at least 14 individuals; however, one bone sample taken from CIL 2014-122, two bone samples and two tooth samples taken from CIL 2014-125, and one bone sample taken from CIL 2014-128 yielded mtDNA sequence data that match that of a known maternal-line relative (cousin) of Arthur H. KELDER. The sequence data are uncommon within the AFDIL statistical population database ($\approx 0.70\%$ of the total database and $\approx 1.88\%$ of the Caucasian sub-database), and it can be inferred that the sequence is relatively rare, though not unique, within the general population. Additionally, Y-STR data obtained from the CIL 2014-122 sample, two of the bone samples from CIL 2014-125, and the CIL 2014-128 sample match Y-STR reference data obtained from a known paternal-line relative (cousin) of Arthur H. KELDER. The sequence data are uncommon within the AFDIL statistical population database ($\approx 0.06\%$ of the total database and $\approx 0.13\%$ of the Caucasian sub-database), and it can be inferred that the Y-STR haplotype is relatively rare within the general population. For administrative purposes, the remains associated with the six samples yielding the same mtDNA sequence data were grouped and re-designated CIL 2014-125-I-01.

c. The dental remains attributable to Arthur H. KELDER through mtDNA testing consist of a maxilla fragment and a mandible fragment with articulating teeth #8, #9, #11, #14, #15, #17, #22, #23, #28, and #32. Five loose teeth—#2, #6, and #24-#26—also are present, and the corresponding dental sockets in the maxilla and mandible fragments are open and unhealed. There also are open and unhealed alveolar sockets for teeth #3-#5, #7, #10, #12, #13, #18-#21, #27, and #29-#31 that suggest that these teeth were lost perimortem or postmortem. Six of the teeth—#2, #9, #14, #15, #17, and #32—have been restored. The available military dental information for Arthur H. KELDER is very limited and does not chart any restorative work. It also should be noted that the X-816 remains examined in 1946 exhibited gold inlays on teeth #5, #12, #18-#21, and #29-#31. By 1952, when the remains were reburied in Manila, these teeth were no longer present in the remains. The CIL 2014-125-I-01 maxilla and mandible fragments exhibit empty alveolar sockets corresponding to teeth #5, #12, #13, #18-#21, and #29-#31.

d. The CIL 2014-125-I-01 skeletal remains consist of those attributable to Arthur H. KELDER through mtDNA and Y-STR testing, as well as elements that can be associated on the basis of articulation and pair matching. Represented are a calvarium, fragmentary maxilla, fragmentary mandible, left humerus, right fibula, and left tibia. Morphologically and developmentally, the remains are consistent with those of an adult (>18-years-of-age) male.

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3. Summary and Conclusions


Available evidence establishes that Arthur H. KELDER was captured in early 1942 by Japanese forces during the battle of the Bataan Peninsula, and that he died while in enemy captivity at a POW camp at Cabanatuan in the Philippine Islands on, or about, 19 November 1942. His body, along with those of 13 other deceased prisoners, initially was buried in a hastily dug mass grave (Common Grave 717) at the POW camp. Following the war, AGRS personnel exhumed the camp cemetery and removed the recovered remains to a U.S.-controlled cemetery near Manila. Later, the remains were again exhumed and transferred to a mausoleum in Manila for the purpose of facilitating identification. The remains that could not be identified—including ten associated with Cabanatuan Common Grave 717—subsequently were reburied at the newly created Manila American Cemetery in 1950 and 1952. In late 2014 the ten graves associated with the Cabanatuan Common Grave 717 were disinterred, and the remains transferred to the CIL for identification. Analysis revealed the remains to be moderately commingled; however, laboratory testing allows skeletal and dental remains commingled in three of the ten graves to be attributed to Arthur H. KELDER to the exclusion of other reasonable possibilities.

4. Finding

In my opinion, the results of laboratory analysis and the circumstantial evidence made available to me establish the remains designated CIL 2014-125-I-01 as those of

Pvt Arthur Herman KELDER, 36016623, U.S. Army

Given the degree of commingling observed in the Unknown remains from the Camp Cabanatuan cemetery, it is possible that additional remains of Arthur H. KELDER may be identified in the future.



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1. Memorandum For The Record, Unknowns X-812, X-814, X-815, X-816, X-818, X-820, X-821, X-822, X-823, and X-824 Manila #2, Common Grave 717, Cabanatuan Camp #3 Cemetery, Luzon, Philippine Islands (P.I.) (CIL 2014-122 to CIL 2014-131): Addendum; 12 January 2015
2. Forensic Odontology Report: CIL 2014-125-I-01; dtd 13 January 2015
3. Forensic Anthropology Report: CIL 2014-125-I-01; dtd 14 January 2015
4. Department of Defense; Armed Forces Medical Examiner System; MCMR-MED-MDN; Consultation Report On Contributor Material; KELDER, Arthur H. (BTB); CIL Case No. 2014-122; dtd DEC 22 2014

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5. Department of Defense; Armed Forces Medical Examiner System; MCMR-MED-MDN; Consultation Report On Contributor Material; KELDER, Arthur H. (BTB); CIL Case No. 2014-125; dtd DEC 22 2014
6. Department of Defense; Armed Forces Medical Examiner System; MCMR-MED-MDN; Consultation Report On Contributor Material; KELDER, Arthur H. (BTB); CIL Case No. 2014-128; dtd DEC 22 2014
7. Material Evidence Report: CIL 2014-125-A-01 Through 03; dtd 12 January 2015
8. Relevant Personnel Records
9. Unknown File, Manila #2, X-816
10. War Department, Report of Death, dtd 18 June 1945
11. Consultant Review [Sorg]; dtd January 16, 2015

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