

APPENDIX C

RESPONSE TO AGENCY COMMENTS
ON THE DRAFT FINAL REPORT

RESPONSE TO COMMENTS ON THE
DRAFT FINAL TRACK 1 ORDNANCE AND EXPLOSIVES
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
FORMER FORT ORD, CALIFORNIA
DATED JUNE 2003

- I. JOHN D. CHESNUTT, REMEDIAL PROJECT MANAGER, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX, 75 HAWTHORNE STREET, SAN FRANCISCO, CALIFORNIA 94105, COMMENTS DATED JULY 11, 2003

The U.S. Environmental Protection Agency (EPA) has completed its review of the Draft Final Track 1 Ordnance and Explosives Remedial Investigation/Feasibility Study, Former Fort Ord, California, dated June 2003. Our review was completed with the assistance of Mr. Tom Hall of Techlaw, Inc. The comments related to this review are attached.

EPA concurs with the designation of the following ordnance and explosives (OE) sites as Track 1, Category 1: OE-5, OE-20, OE-59A, OE-69 and OE-70. We concur with the following OE sites as Track 1, Category 3: OE-1, OE-24B, OE-24D, OE-24E, OE-27X, OE-27Y, OE-32A, OE-32B, OE-39, OE-62, OE-63 and OE-66.

The designation of the following sites as Track 1 cannot be evaluated until additional information is provided: OE-6, OE-13A, OE-17, OE-22 and OE-49. In addition, the retention of Site OE-24C in the Track 1 process until further information is gathered is acceptable. However, convincing evidence that no unexploded hand grenades or other hazardous ordnance is present at the site should be provided in order for it to be finally designated as a Track 1 Site. We also concur with the Army's removing Site OE-2 from consideration as a Track 1 site until additional data can be gathered concerning the potential presence of buried Chemical Agent Identification Sets (CAIS) within the site boundaries.

We look forward to discussing and resolving these comments with you. If you have any questions, please contact me at 415-972-3005.

General Comments

- Comment 1: There are a number of instances where the document states that "It is unlikely..." or "It is highly unlikely..." combined with terminology used to describe the likelihood that firing devices, simulators, rifle smoke grenades, ground illumination signals, mines/mine fuzes, and other ordnance items will function due to stimulus provided by individuals coming into contact with the items. While the information provided is generally correct with respect to casual or incidental contact with the items, the potential for individuals to subject the items to undue stimulus as a result of attempts to retrieve, function, disassemble, or otherwise abuse the items does not appear to be considered. In most of these intentional instances, the potential for personal injury is much higher than for the casual or incidental contact scenario, as the items will likely function as designed or in a limited manner,**

both of which may result in personal injury of varying degrees. Please review each instance where the noted terms are used to describe the potential results of contact with ordnance items and ensure that the situations described are specifically identified as situations involving casual and/or incidental contact with the ordnance items.

Response 1: All references to persons coming into contact with the items potentially present at the site and the likelihood of causing an item to function, are with respect to casual contact with the items. All such references in the Track 1 report have been modified for clarification.

Comment 2: The M22 series rifle smoke grenade is noted in the “Potential Exposure Routes” section of a number of the sites discussed in the document. In the subsection entitled “Summary,” the statement is made that “.....the grenade: (1) was designed to be functioned by a hard blow to the firing pin,.....” While a hard blow to the firing pin would very likely function the grenade, the firing pin is not accessible without disassembling the grenade. However, any throwing or otherwise subjecting the grenade to a launch-type environment that results in a significantly hard nose-on impact may function the impact inertia fuze. This is not a blow to the firing pin, but an action which allows the firing pin to impact the primer, which, under normal use of the item, will function the grenade. Please replace the noted statement with the words “...the grenade: (1) was designed to be functioned by a hard nose-on impact with the ground or other hard target...”

Response 2: The text discussing the M22 series rifle smoke grenades has been revised as requested.

Comment 3: A statement similar to “These components would have been exposed to moisture, degradation, and weathering for many years, which would decrease their effectiveness.” is found in a number of the “Potential Exposure Routes” sections of the document. This statement and other relatively synonymous phrases may result in the erroneous assumption by some readers that all ordnance items which are exposed to the elements for “many years” have become less hazardous than the day they were fired. While it is true that ordnance items which are not constructed of water/moisture proof materials or which have been damaged due to firing or other rough conditions may degrade in efficiency over time, this is not always the case for all types and conditions. Munitions which are designed for emplacement in the ground are normally conditioned against such degradation for extended periods of time. In addition, munitions which have been discarded in their original packaging often survive with full potency after many years of exposure to the elements. Please review all such statements and ensure that they are not universally applied to all munitions items exposed to the elements, but are only applied where it is positively known that significant degradation of the item will occur under the conditions described.

Response 3: All references to the effects of the long-term exposure to the elements on items potentially remaining at the site were changed from “would” decrease their effectiveness to “could” decrease their effectiveness.

Specific Comments

Comment 1: Glossary, Mortar, Page ix: The following comment was provided on the previous draft:

“Glossary, Mortar, Page x: The listed definition for Mortar states that “Mortars range from approximately 1 inch to 11 inches in diameter and can be filled with...” While the remainder of this definition is correct, there are mortars that exist or have existed with bore diameters of 12 inches or greater. The former Soviet Union had a self-propelled mortar built on the Joseph Stalin 3 tank chassis in the 1950s-1960s time frame which exceeded 400mm (15+ inches) in bore diameter. In addition, the United States Army Coast Artillery has possessed mortars (Models M1908 and M1912) with a 12 inch diameter for seacoast defense. The existing definition should be corrected or replaced with a more accurate definition.”

The following response was provided in Appendix C, Response to Agency Comments on the Draft Report:

“The existing definition was corrected.”

Review of the definition in the revised document found that it reads as it did in the draft. Please correct this by replacing the current definition with the one found on page 344 of Department of Defense Joint Publication 1-02 (DoD Dictionary of Military and Associated Terms). If the definition is intended to define the projectiles fired from a mortar, please so state and provide a definition of mortar projectiles instead.

Response 1: The definition was replaced with the definition from Publication 1-02.

Comment 2: Executive Summary, Lines 3 and 4, Page xxii: The statement is made here that “No OE associated with a tank gunnery range (shoulder-launched projectiles, rifle grenades or mortars) found.” It is unclear what is meant by this statement, as nothing similar to it is found in the section (Site OE-32A) it summarizes. A tank gunnery range would possibly have items associated with tank ammunition on its site. Shoulder-launched projectiles would be found on an antitank range, a rocket launcher range, a recoilless rifle range or a rifle grenade range, depending on the type of shoulder launched weapons being fired. They should not be found on a tank gunnery range unless the impact areas overlapped. Mortar projectiles would only be found if the impact areas overlapped or if mortars were used to fire illumination rounds to provide illumination for night firing at a tank gunnery range. Please make the necessary corrections in light of the preceding information.

Response 2: The text has been revised for clarity.

Comment 3: **Executive Summary, Line 15, Page xxii: The term “grenade spoon” is used here to describe a hand grenade safety lever. While this term is an unofficial slang term often used by ordnance personnel to describe the grenade safety lever, the correct nomenclature for the item should be used in this document to avoid confusion on the part of other readers. Please replace the term “grenade spoon” with the correct nomenclature for the item under discussion.**

Response 3: The text has been revised as requested.

Comment 4: **Executive Summary, Line 4, Page xxiii: The statement is made here that “2 inert practice rounds for a M-79 grenade launcher were found . . .” As was noted in the EPA General Comment 2 on page 10 of Appendix C, Response to Agency Comments, the use of the term “round” is normally confined to all of the components necessary to function a weapon one time. Review of the writeup for Site OE-49 in the body of the document (page 3.49-5, line 21) indicates that these “rounds” were projectiles, and were not complete rounds. Please revise the noted line in the Executive Summary to coincide with the referenced verbiage in the main body of the document.**

Response 4: The text has been revised as requested.

Site-Specific Comments

Comment 1: **Site OE-1 (Flame Thrower Range)**

The designation of this site as Track 1 Category 3 can be supported.

Response 1: Comment acknowledged. The Army will require that it be notified prior to the start of ground disturbing activities associated with the development or redevelopment of the site and will provide construction education (e.g., construction worker “ordnance recognition and safety training”) prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing the Army will continue worker safety refresher education by conducting site visits on a weekly basis.

Comment 2: **Site OE-2 (Pete’s Pond and Extension)**

EPA concurs with the Army’s decision to remove this site from Track 1 consideration for now until further information is available concerning whether Chemical Agent Identification Sets were buried within site boundaries.

Response 2: Comment acknowledged.

Comment 3: Site OE-5 (South of East Garrison)

The designation of this site as Track 1 Category 1 can be supported.

Response 3: The text for Site OE-5 has been revised to incorporate the results of the site walk conducted in November 2003. A report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-5.

Comment 4: Site OE-6 (Mine and Booby Trap Training Area)

The designation of this site as Track 1 cannot be supported without additional data. Although the descriptive information concerning the sampling activities and the potential OE use within the area has been expanded significantly, the fact remains that the precise location of the OE items found during the sampling work is unknown. According to Plate 6-4, none of the sampling grids include that portion of OE-6 which overlaps the 1954 Mine and Booby Trap Area shown on that plate. This unsampled overlap area is the area of prime concern with respect to the potential presence of OE items in Site OE-6. As a result, the area of prime concern has not been sufficiently investigated to support the inclusion of Site OE-6 as a Track 1 site. Until further evidence is presented for that area, the site will remain suspect and should not be a Track 1 designee.

Response 4: No evidence was found during the literature review or during OE sampling to indicate that high explosives were used at Site OE-6 or that this site was used as an impact area. Sampling included the investigation of sixteen 100- by 100-foot grids within Site OE-6 and in the open area between Site OE-6 and nearby Site OE-1 to the south. No OE was found during this sampling. The OE scrap that was found during sampling was consistent with the type of items that were expected to have been used in training where practice or inert mines and booby traps were used (e.g., M1 antitank practice mines, M80 antitank training mines, and M8 antipersonnel practice mines). Based on the evidence gathered during the RI, the Army believes that no further OE-related investigation was warranted. However, to address regulatory agency concerns regarding the adequacy of the sampling investigation conducted at Site OE-6, a site walk was performed on June 2 and 3, 2004, within the boundary of Site OE-6 and the open area to the south of the site. To investigate this former mine and booby-trap training area, the team utilized a meandering path method for the site walk. The investigation was conducted by a two-person team that included a UXO Safety Specialist. The team swept the path walked using a Schonstedt Model GA-52/Cx magnetometer. Only OE scrap was found during the site walk. The scrap items found (two expended fuzes for M1 series practice mines and an expended firing device [M1-type]) are consistent with the type of items that would have been used at a mine and booby-trap training area and support the conclusion that no further OE-related investigation is necessary at this site. Other training related items found included a hand grenade safety lever and live and expended small arms

ammunition. Details of the site walk including a map showing the path walked are included as an attachment to this appendix.

Although it is not expected that OE is present at Site OE-6, the Army recommends reasonable and prudent precautions be taken when conducting intrusive operations at the site. Construction personnel involved in intrusive operations at the site should attend the Army's "ordnance recognition and safety training" to increase their awareness of and ability to identify OE items. Trained construction personnel will contact an appropriate local law enforcement agency if a potential OE item is encountered. The local law enforcement agency will arrange a response by the Army. To accomplish that objective, the Army will request notice from the landowner of planned intrusive activities, and in turn will provide ordnance recognition and safety training to workers prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing, the Army will conduct weekly site visits and provide refresher education as appropriate.

Comment 5: **Site OE-13A (Practice Mortar Range)**

The designation of this site as Track 1 cannot be supported without additional data. The descriptive information concerning the sampling activities and the potential OE use within the area has been expanded significantly. However, the fact still remains that the western three-fourths of the area has not been sampled, and this is the portion of the area in the closest proximity to the offsite locations where ordnance items have been found. Until additional ordnance investigation is accomplished in the western three-quarters of the area, the potential for undiscovered ordnance to remain there will be unknown. This uncertainty requires that the designation of the site as Track 1 be withheld until a satisfactory investigation determines that no ordnance is present.

Response 5: Although the western $\frac{3}{4}$ of Site OE-13A was not sampled by an OE contractor, this area has undergone extensive soil disturbance over time without turning up any evidence of OE from past military training. As discussed in the draft final Track 1 report, these activities included excavation and re-grading of landfill Area A and construction of Abrams housing. In all, approximately 42 acres have been either excavated or graded within the boundary of Site OE-13A.

The western portion of Site OE-13A overlies a portion of a former Fort Ord landfill (Area A of Operable Unit 2 [OU 2]). This area was used as a sanitary landfill in the 1960s. Excavation and removal of landfill material in this area was conducted in 1996 through 1998 as part of the clean closure of Area A. The excavation and removal of landfill material to a depth of 15 feet included, approximately 14 acres (the western $\frac{1}{4}$) of Site OE-13A (Plates 13A-2 through 13A-5). The total extent of the former landfill area that was excavated (Area A) included approximately 33 acres. Various OE and OE-scrap items were discovered during the excavation and relocation of the waste material in landfill

Area A (as shown in Table 13A-1A of the draft final Track 1 report). Excavation of landfill material continued until visible debris was removed and confirmation sampling demonstrated that the pre-established cleanup levels for Area A were met (*Draft Final Remedial Action Confirmation Report and Post-Remediation Screening Risk Assessment, Area A, Operable Unit 2 Landfills, Former Fort Ord, California*, April 2001, by IT Corporation, Administrative Record #OU2-59A). Grading to support the Area A relocation, just southeast of the limits of excavation and north of Imjin Road, is also evident on Plate 13A-5, within the OE-13A boundary. Several OE and OE-scrap items were also found during the pipeline trenching associated with OU2 groundwater treatment system (Table 13A-1). Although trenching work extended from the OU2 landfill area to other parts of the Main Garrison, OE-related items were found only in trenches near the OU2 landfill and Area A. Therefore, these incidental OE-related materials were likely associated with the landfill.

A large portion of Site OE-13A (approximately 28 acres) was graded and contoured during the construction of the Abrams Park housing area in the 1970's. As described in Section 3.13A.2 of the draft final Track 1 report, up to 25 feet of soil and landfill material were removed from various areas. The disturbed areas are visible on Plates 13A-4 and 13A-5. The Track 1 remedial investigation did not find any record of discovery of OE during construction activities within the site boundary or immediate vicinity. As indicated in Section 3.13A.6.1 there was an interview record of several OE items, including "little blue rockets," that were found at the edge of the landfill area during the construction of the Abrams housing. These items were found near the corner of Imjin Road and 12th Street, more than 1,400 feet west of the western boundary of Site OE-13A. Follow-up investigation on this incident concluded that the items were two blue practice items and bullet casings, and were associated with the landfill (Section 3.13A.6.1). No other report of discovery of OE or OE-scrap during the Abrams Park housing construction was found during the remedial investigation.

These soil disturbance activities, together with OE sampling conducted by HFA and CMS covered over 70% of Site OE-13A, but excluded the central portion of the site. A follow-up investigation of this undisturbed area was completed in January 2004 (site walk). The site walk was conducted by a three-person team, which included a UXO safety specialist. The team swept the path walked using a Schonstedt Model GA-52/Cx magnetometer. The path walked was also recorded using a GPS unit. All anomalies identified were investigated using hand tools. In addition, Imjin Road passes through the southern portion of Site OE-13A (Plates 13A-3 through 13A-5). The site walk information is provided as an attachment to this appendix, and the final Track 1 report has been revised to include the results of the site walk. Items found during the site walk included an M69 training mortar (OE-scrap), empty M1 ammunition clips, and non-OE scrap. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-13A.

As a measure of precaution, the Army will request notice from the landowner of planned intrusive activities associated with redevelopment of the site area, and in turn will provide ordnance recognition and safety training to construction workers prior to the start of intrusive work. Additionally, while these intrusive

activities are ongoing, the Army will conduct weekly site visits and provide refresher education as appropriate.

Comment 6: **Section 3.13A.4 History of OE Investigations, 1997 USA Environmental (USA/CMS), Lines 23-26, Page 3.13A-6:** It is stated here that “Two OE scrap items (an expended grenade fuze and expended illumination signal) were found at depths of 4 and 5 inches below ground surface, respectively, and removed (Table 13A-3). These items would not be expected at a practice mortar range.” While the practice grenade fuze is somewhat unusual for a practice mortar range, the expended illumination signal could have had a number of functions associated with the range, particularly if night operations were conducted at the range. Please remove the illumination signal from the category of unexpected for a mortar range.

Response 6: This section has been revised as requested.

Comment 7: **Section 3.13A.5.4 Potential Exposure Routes, Lines 23-24, Page 3.13A-9:** This paragraph notes that “The M205 contains the same components in the same arrangement, and functions the same as the M204 fuze above.” This is somewhat confusing, as there is no M204 fuze shown or described “above,” or anywhere else in the narrative for this site. In addition, although the two fuzes begin their functioning in the same manner, the end result for the M204 fuze is the functioning of the detonator (a component of the fuze), while the M205 functions the integral igniter. The M204 fuze is much more dangerous than the M205 due to the presence of the detonator. Please revise this section to correct the noted errors.

Response 7: This section has been revised as requested.

Comment 8: **Site OE-17 (Antitank Practice Mine Area)**

The designation of this site as Track 1 cannot be supported without additional data. As with most of the preceding sites, the descriptive information concerning the sampling activities and the potential OE use within the area has been expanded significantly. However, the added information has not eliminated the potential for OE to remain undetected within the site. It was previously noted that the sampling procedure used in the site would not necessarily be the optimum sampling procedure to use to locate a mine warfare training area due to the clustering of munitions. In addition, even though it is very unlikely that a shoulder fired antitank weapon range existed within the boundaries of the site, no significant proof that one was not located there has been proffered. As a result, EPA does not support the area as a Track 1 site without further evidence that no OE remains on the site.

Response 8: Concur, Site OE-17 has been removed from Track 1 consideration at this time.

Comment 9: Site OE-20 (Recoilless Rifle Training Range)

The designation of this site as Track 1 Category 1 can be supported. The location of other facilities in relatively close proximity to this area indicates that the area was most likely used for crew drill for recoilless rifle (RR) teams and not for any type of live firing. The safety implications for firing RR into the impact area from here would prohibit such action, since RR are prohibited from firing over the heads of troops except during wartime action against an enemy. Crew drill involves setup and preparation for fire of the weapon and is accomplished using drill or dummy ammunition (both are inert) prior to moving to the range for live fire into the impact area. No OE was discovered on the site during the OE sampling activities.

Response 9: Comment acknowledged.

Comment 10: Site OE-22 (Beach Ranges)

The designation of this site as Track 1 cannot be supported without additional data. A significant and detailed quantity of supplemental information has been added to most of the sections pertaining to the site in response to the EPA and DTSC comments provided on the previous version. However, a substantial portion of the site has not been thoroughly investigated, and, as a result, concerns as to whether OE exists within the boundaries of the site remain. According to Section 3.22.1 Site Description, the site encompasses approximately 952 acres. Of that, Human Factors Applications (HFA) and CFI Environmental (CFI) intrusively investigated an approximate area of 33 acres, or 3.5 percent of the site. It should be noted that the 1992-1993 Basewide RI/FS and the 1994 biological sampling activities resulted in 23 test pits (size unknown) being dug and the ultimate excavation of the small arms ranges. In addition, USA Environmental investigated 3 additional grids (size unspecified in the document) in 1998. While these are all of value, the question as to whether OE is located beneath the surface of the remaining acres remains unanswered. As a result, EPA will either need something more substantial than the information currently available to concur with the acceptance of this site as a Track 1 designee or institutional controls/long-term monitoring will need to be established as a remedy for the site.

Response 10: In addition to the OE sampling conducted at Site OE-22 by HFA and CMS Environmental Inc., and the test pits excavated during the Basewide RI/FS and biological sampling, approximately 162,800 cubic yards of lead impacted soil was excavated as part of the remedial action performed at the Site OE-22 small arms firing ranges. This soil removal extended over an area of approximately 48 acres. During the excavation and soil removal, only two OE scrap items were found.

DTSC and State Parks will enter into a Memorandum of Understanding (MOU) for operation and maintenance activities on Site OE – 22. This MOU will be implemented to inspect the beach property for the presence of OE items and lead

bullets periodically and after weather induced erosion events. The MOU would also call for proper notification in the case of any discovery of OE items (or potential OE items), during these inspections. The Army will provide ordnance recognition and safety training to all California State Parks employees who work at the former Fort Ord Beach Ranges. In addition, any construction personnel involved in intrusive operations at the site will attend the Army's "ordnance recognition and safety training" to increase their awareness of and ability to identify OE items. Trained construction personnel will contact an appropriate authority, as identified in the MOU, if a potential OE item is encountered. To accomplish that objective, State Parks will notify the Army of planned intrusive activities and the Army will provide ordnance recognition and safety training to workers prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing, the Army will provide ordnance safety refresher education as appropriate.

Comment 11: **Section 3.22.2 Site History and Development, 1980s Era, Lines 5-9, Page 3.22-4: This section states “During construction of the berms, 105mm rounds were found. It is not known what was specifically meant by ‘rounds’; however, Mr. Hancock may be referring to unfired shells. It is believed that the found items were ammunition that had been stolen from the ASP, buried, and never retrieved. Because it is likely that these items had not been fired, they would not have had fuzes installed, and therefore, would not function.” The statement that the items would not have had fuzes installed because they had not been fired is incorrect. 105mm howitzer ammunition is often stored and issued with the fuzes installed (see DoD Identification Code [DODIC] C432, C443, and C444 for examples of 105mm howitzer ammunition with point detonating and mechanical time super quick fuzes installed at the ammunition plant where they were manufactured). The same is true for 81mm mortar ammunition (see DODIC C222, C225, C227, C230 and C231), and numerous other projectile types. Please revise the listed section and also Section 3.22.5.3, Potential Sources and Location of OE, lines 16 and 17, page 3.22-14, to remove the verbiage that indicates that unfired ammunition will normally/likely not have fuzes installed.**

Response 11: The statement in question has been stricken from the document.

Comment 12: **Section 3.22.5.4 Exposure Routes, Cartridge, 60 Millimeter: Target Practice Mortar: M50 Series, Lines 18-20 and Summary, Lines 27-29, Page 3.22-15: The lines cited in these two sections give the incorrect impression that the fuze present in an unfired M50 series mortar projectile cannot be made to function short of placing it in a fire. The fuzes most likely used with the M50 series 60mm mortar projectile during the time frame of concern are the M52 and M525 series point detonating fuzes. Both are setback armed, with the M525 having a safe separation arming delay escapement mechanism. It is possible for either of these fuzes to become armed by very rough handling if the safety pin has been removed. If this occurs, it will function in the same**

manner as noted for the fired projectile. Please correct the cited sections to reflect the information provided above.

Response 12: Sections 3.22.5.4 and 3.22.7.1 have been revised as suggested.

Comment 13: Site OE-24B (Practice Hand Grenade Range)

The designation of this site as Track 1 Category 3 can be supported.

Response 13: Comment acknowledged. The Army will require that it be notified prior to the start of ground disturbing activities associated with the development or redevelopment of the site and will provide construction education (e.g., construction worker “ordnance recognition and safety training”) prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing the Army will continue worker safety refresher education by conducting site visits on a weekly basis.

Comment 14: Site OE-24C (Live Grenade Range)

EPA concurs with the Army’s decision to conduct further investigations in this site and will not consider it to be a Track 1 designee until the results of these investigations have been reviewed and their results deemed acceptable. As this area definitely contained a HE hand grenade range, it should not be designated as Track 1 without detailed evidence that no dud HE grenades remain within the site.

Response 14: Concur, Site OE-24C has been removed from Track 1 consideration at this time.

Comment 15: Section 3.24C.5.1 Training Practices, Lines 5 and 6, Page 3.24C-5: The title of one of the subsections reads “Field Battalion Training Area (FTBA) and Reconnaissance Occupation of Position (RSOP) Training Areas.” The title has errors in it and should read as follows: “Field Battalion Training Area (FBTA) and Reconnaissance, Selection and Occupation of Position (RSOP) Training Areas.” Please make this correction.

Response 15: This section has been revised as requested.

Comment 16: Site OE-24D (Booby Traps)

The designation of this site as Track 1 Category 3 can be supported.

Response 16: Comment acknowledged. The Army will require that it be notified prior to the start of ground disturbing activities associated with the development or redevelopment of the site and will provide construction education (e.g., construction worker “ordnance recognition and safety training”) prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing

the Army will continue worker safety refresher education by conducting site visits on a weekly basis.

Comment 17: **Site OE-24E (Practice Rifle Grenade Range)**

The designation of this site as Track 1 Category 3 can be supported.

Response 17: Comment acknowledged. The Army will require that it be notified prior to the start of ground disturbing activities associated with the development or redevelopment of the site and will provide construction education (e.g., construction worker “ordnance recognition and safety training”) prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing the Army will continue worker safety refresher education by conducting site visits on a weekly basis.

Comment 18: **Site OE-27X (Training Site 24)**

The designation of this site as Track 1 Category 3 can be supported. The descriptive information concerning the sampling activities and the potential OE use within the area has been expanded significantly. It includes a narrative of the results of an interview with the Fort Ord Range Control Officer who served on the post from 1970-1990. He stated that the Aviation Training Areas were used for training in emergency evacuation procedures and that the use of OE was not a part of that training. He also noted that Range Control was responsible for scheduling the use of the ranges and that the areas were inspected prior to allowing the unit to check out of the area. As a result of this added information, EPA concurs that Area OE-27X meets the criteria for designation as Track 1, Category 3.

Response 18: Comment acknowledged.

Comment 19: **Site OE-27Y (Oil Well Road Training Area)**

The designation of this site as Track 1 Category 3 can be supported.

Response 19: Comment acknowledged.

Comment 20: **Site OE-32A (Oil Well Road Training Area)**

The designation of this site as Track 1 Category 3 can be supported.

Response 20: Comment acknowledged.

Comment 21: **Site OE-32B (Oil Well Road Training Area II)**

The designation of this site as Track 1 Category 3 can be supported. The descriptive information concerning the sampling activities and the potential OE use within the area has been expanded significantly. Additional analysis of the potential for a Tank Gunnery Range firing any weapon except machine guns or tank gun subcaliber devices (.50 caliber or below) has further indicated that safety rules in effect at the time would have likely prohibited such a range. The added information and analysis reinforces the determination that the Track 1, Category 3 designation can be supported.

Response 21: Comment acknowledged.

Comment 22: **Site OE-39 (Mine and Booby Trap Area)**

The designation of this site as Track 1 Category 3 can be supported.

Section 3.39.5.1 Training Practices, Line 23, Page 3.39-5: This line contains the title of a subsection which reads “Booby Trap Training (update with latest OE-1 information).” The information in parentheses appears to be extraneous. Please review and correct as necessary.

Response 22: This section has been revised as requested. The Army will require that it be notified prior to the start of ground disturbing activities associated with the development or redevelopment of the site and will provide construction education (e.g., construction worker “ordnance recognition and safety training”) prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing the Army will continue worker safety refresher education by conducting site visits on a weekly basis.

Comment 23: **Site OE-49 (Former Rifle Grenade Range)**

The designation of this site as Track 1 cannot be supported without additional data. The information describing the activities conducted in the area, the source and credibility of the information resulting in the designation of an unspecified portion of the area as a rifle grenade range, and the potential OE used in the area have been substantially expanded. However, the information provided affords insufficient assurance that HE rifle grenades were not used inside the site boundaries. No intrusive sampling has been done, and the reconnaissances conducted appear to have left significant portions of the site unobserved. As a result, the Army needs to propose an acceptable procedure to the regulatory agencies to resolve this situation. An intensive reconnaissance of the area, with discussion of the results, would be of value in determining how to proceed. Until an acceptable process for documenting that no rifle grenade related OE remains on the site, it cannot be supported for designation as a Track 1 site.

Response 23: A follow-up investigation of this site (site walk) was conducted in March 2004. The Final Track 1 OE RI/FS will include the results of the site walk, and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-49.

[Note: At the May 5, 2004 MR BCT meeting, BCT members discussed construction-related ordnance safety education (similar to the requirements for OE-13A above) and decided not to require it for this site. The site walk did not discover any munitions and explosives of concern. The Army offers ordnance recognition training to anyone who requests it, and all future Fort Ord deeds will include a contact number and instructions about what to do in case of a discovery of military munitions. It was decided that the level of uncertainty was much lower at this site compared to other sites requiring construction-related safety education (such as OE-13A), and therefore was not a necessary requirement at OE-49.]

Comment 24: **Site OE-59A (Unnamed)**

The designation of this site as Track 1 Category 1 can be supported.

Response 24: Additional investigation of this site was conducted in November 2003 (site walk). The text has been revised to include the results of the site walk and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-59A.

Comment 25: **Site OE-62 (Laguna Seca Open Space)**

The designation of this site as Track 1 Category 3 can be supported.

Response 25: Additional investigation of this site was conducted in October 2003 (site walk). The text has been revised to include the results of the site walk and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-62.

Comment 26: **Site OE-63 (Canyon Training Area)**

The designation of this site as Track 1 Category 3 can be supported.

Response 26: Additional investigation of this site was conducted in October 2003 (site walk). The text has been revised to include the results of the site walk and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-63.

Comment 27: **Site OE-66 (Signal Corps Small Arms)**

The designation of this site as Track 1 Category 3 can be supported.

Response 27: Additional investigation of this site was conducted in November 2003 (site walk). The text has been revised to include the results of the site walk and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-66.

Comment 28: **Site OE-69 (Unnamed)**

The designation of this site as Track 1 Category 1 can be supported.

Response 28: Comment acknowledged.

Comment 29: **Site OE-70 (Unnamed)**

The designation of this site as Track 1 Category 1 can be supported.

Response 29: Additional investigation of this site was conducted in October 2003 (site walk). The text has been revised to include the results of the site walk and a report documenting the site walk is included as an attachment to this Appendix. The results of the site walk support the recommendation that no further OE-related investigation is necessary at Site OE-70.

RESPONSE TO COMMENTS ON THE
DRAFT FINAL TRACK 1 ORDNANCE AND EXPLOSIVES
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
FORMER FORT ORD, CALIFORNIA
DATED JUNE 2003

- II. DANIEL T. WARD, P.E., CHIEF, BASE CLOSURE UNIT, OFFICE OF MILITARY FACILITIES, DEPARTMENT OF TOXIC SUBSTANCES CONTROL, 8800 CAL CENTER DRIVE, SACRAMENTO, CALIFORNIA 95826-3200, COMMENTS DATED DECEMBER 2, 2003

On September 17, 2003, the Department of Toxic Substances Control (DTSC), United States Environmental Protection Agency (U.S. EPA) and the Army met to discuss the Track I Remedial Investigation/Feasibility Study (RIIFS). At the meeting there was disagreement among U.S. EPA, the Army and DTSC regarding whether several potential ordnance and explosives (OE) sites should be designated "Track 1", defined as suitable for unrestricted use. As of September 17, 2003, the Army believed that 21 of its originally proposed 24 sites qualified to be Track 1; the Army removed Sites OE-2, OE-17, OE-24C from consideration. At that time, DTSC's position was that 5 sites qualified. In order to attempt to resolve these differences, DTSC committed to re evaluate the Track I RI/FS, evaluate some new information the Army had recently released, and perform site inspections. During October and early November, DTSC completed its evaluation and site inspections. This letter summarizes DTSC's position on the 21 remaining sites.

DTSC concurs with the Army that the following sites qualify to be Track I: OE-5, OE-20, OE-27X, OE-27Y, OE-32A, OE-32B, OE-59A, OE-62, OE-63, OE-66, OE-69 and OE-70.

Comment 1: DTSC's position is that additional OE investigatory work is required on the following sites, and that these sites do not qualify as Track I at this time: OE-6, OE-13A and OE-49. The U.S. EPA concurs with this position. DTSC will work with U.S. EPA and the Army on the specifics of the additional work required. DTSC will concur that these sites qualify as Track I when the data generated by the additional work show that these sites qualify.

Response 1: Follow-up investigations in the form of site walks were conducted at Sites OE-13A and OE-49 at the request of the DTSC and USEPA. The specific location of the site walk within the boundary of Sites OE-13A and OE-49 was selected by the DTSC. The site walks were conducted by a two-person team, which included a UXO safety specialist. A representative of the DTSC was present during the site walk conducted at Site OE-13A. The site walks were conducted in a similar manner to the site walks conducted in November 2003 at Sites OE-5, OE-59A and OE-66. Only OE scrap was found during the site walks conducted at Sites OE-13A and OE-49. The item found at Site OE-13A (inert training mortar) is consistent with the type of items that would have been used at this site during training, supporting the conclusion that no further OE-related investigation is necessary at this site. The OE scrap items found at Site OE-49 do not support the reported use of this site as a rifle grenade range. However, the items that were found are consistent with items present in general troop training

and maneuver areas, supporting the conclusion that no further OE-related investigation is necessary at Site OE-49.

For Sites OE-6 and OE-13A, as a measure of precaution, the Army will request notice from the landowner of planned intrusive activities associated with redevelopment of the site area, and in turn will provide ordnance recognition and safety training to construction workers prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing, the Army will conduct weekly site visits and provide refresher education as appropriate. Requirements for construction worker “ordnance recognition and safety training” will be documented in the Track 1 Record of Decision.

[Note for OE-49: At the May 5, 2004 MR BCT meeting, BCT members discussed construction-related ordnance safety education (similar to the requirements for OE-13A above) and decided not to require it for this site. The site walk did not discover any munitions and explosives of concern. The Army offers ordnance recognition training to anyone who requests it, and all future Fort Ord deeds will include a contact number and instructions about what to do in case of a discovery of military munitions. It was decided that the level of uncertainty was much lower at this site compared to other sites requiring construction-related safety education (such as OE-13A), and it was not necessary to require it at OE-49.]

Comment 2:

DTSC’s position is that additional measures must be taken on the following proposed Track I sites that include existing housing: OE-1, OE-24B, OE-24D, OE-24E and OE-39. Our understanding is that the Army’s Residential Communities Initiative (RCI) program will be demolishing housing in these areas and will then be building new housing. DTSC intends to work with U.S. EPA and the Army to agree on additional measures to assure that these areas are excavated and used safely. These measures may include such provisions as worker education and unexploded ordnance (UXO) construction support. DTSC’s position is that these measures should be selected in a Record of Decision, or the Army and DTSC should enter into an agreement to assure that this work is performed. DTSC will concur on residential reuse for these sites when one of the above options is implemented.

Response 2:

Because future land use at these sites may include ground disturbing activities (e.g., demolition and/or construction), the Army will implement additional measures in the form of construction worker “ordnance recognition and safety training” in order to insure the safety of workers who may perform construction activities at these sites. Requirements for construction worker “ordnance recognition and safety training” will be documented in the Track 1 Record of Decision.

Comment 3: DTSC is currently in discussions with California State Parks regarding OE-22, the beach ranges. There is evidence that OE may exist on this site, and it may not qualify as a Track 1 site. However, because the use will be restricted, use as a state park is likely acceptable. As you are aware, DTSC's position has long been that this area, due to residual lead contamination from small arms ranges, is not suitable for residential use. A landuse covenant will be required to be recorded on this property prior to transfer to California State Parks. Further, DTSC's position has been that an operation and maintenance (O&M) plan must be implemented to periodically inspect the shifting sand dunes for uncovered lead bullets. DTSC has requested that the Army implement this workplan, while the Army's position is that it should be implemented by California State Parks. Because there is the additional possibility that OE may be uncovered, the O&M plan should also include inspection for uncovered OE, and the landuse covenant should also cover the possibility of OE on the property. DTSC will work with the Army, U.S. EPA, and California State Parks to come to resolution on this issue. DTSC will concur on the use of this property when either the Army or California State Parks agrees in writing to implement the O&M plan, and when a landuse covenant is recorded.

Response 3: DTSC and State Parks will enter into a Memorandum of Understanding (MOU) for operation and maintenance activities on Site OE – 22. This MOU will be implemented to inspect the beach property for the presence of OE items and lead bullets periodically and after weather induced erosion events. The MOU would also call for proper notification in the case of any discovery of OE items (or potential OE items), during these inspections. The Army will provide ordnance recognition and safety training to all California State Parks employees who work at the former Fort Ord Beach Ranges. In addition, any construction personnel involved in intrusive operations at the site will attend the Army's "ordnance recognition and safety training" to increase their awareness of and ability to identify OE items. Trained construction personnel will contact an appropriate authority, as identified in the MOU, if a potential OE item is encountered. To accomplish that objective, State Parks will notify the Army of planned intrusive activities and the Army will provide ordnance recognition and safety training to workers prior to the start of intrusive work. Additionally, while these intrusive activities are ongoing, the Army will provide ordnance safety refresher education as appropriate.

[Note: At the May 5, 2004 MR BCT meeting, BCT members discussed construction-related ordnance safety education (similar to the requirements for OE-13A above) and decided not to require it for this site. State Parks has its own guidance for what to do in case of a discovery of military munitions. The Army offers ordnance recognition training to anyone who requests it, and all Fort Ord deeds include a contact number and instructions about what to do in case of a discovery of military munitions. It was decided that DTSC will talk with the State Parks to ensure that they are aware that they will be responsible for communicating reasonable precaution measures to their construction personnel.]

In summary, the Army originally proposed 24 sites to be Track 1, and then reduced its proposal to 21 sites. As a result of recent additional information released by the Army, DTSC's reevaluation and site visits, DISC now concurs that 12 sites qualify as Track 1. If additional information surfaces regarding OE on these sites, the Track I status of these sites may change.

DTSC looks forward to completion of the additional measures described above so that the remaining sites can be reused safely.

If you have any questions, please feel free to contact me at (916) 255-3676.

APPENDIX C

ATTACHMENT 1

SUMMARY OF TRACK 1 SITE WALK OBSERVATIONS

SUMMARY OF TRACK 1 SITE WALK OBSERVATIONS

Site OE- 62 October 23, 2003

Site walk conducted with assistance from the USACE. Global Positioning System (GPS) instrumentation was utilized along with a base map to identify areas of concern. A visual observation was conducted to evaluate terrain identified in Base Wide Range Assessment. No unexploded ordnance (UXO) or ordnance (OE) scrap was observed during the site walk. Blank small arms expended ammunition casings were observed. A map of the site walk is attached.

Site OE- 63 October 23, 2003

Site walk conducted with assistance from the USACE. GPS instrumentation was utilized along with a base map to identify areas of concern. A visual observation was conducted to evaluate terrain identified in Base Wide Range Assessment. No UXO or OE scrap was observed during the site walk. Blank small arms expended ammunition casings were observed. A map of the site walk is attached.

Site OE- 70 October 23, 2003

Site walk conducted with assistance from the USACE. GPS instrumentation was utilized along with a base map to identify areas of concern. A visual observation was conducted to evaluate terrain identified in Base Wide Range Assessment. No UXO or OE scrap was observed during the site walk. Blank small arms expended ammunition casings were observed. A map of the site walk is attached.

Site OE-5 November 13, 2003

Site walk conducted with assistance from Parsons UXO Safety Specialist, GPS operator and observation by DTSC. A Schonstedt GA-52/Cx was used to detect subsurface anomalies that potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted at a later date. A total of 21 anomalies were detected and investigated. No UXO or OE scrap were detected, except for 1 expended illumination signal. Expended and live small arms ammunition was also observed. A map of site walk and Table of the items found during site walk intrusive investigation is attached. Site walk data gaps occurred when a dense area of overhead vegetation was encountered.

Site OE- 59A November 13, 2003

Site walk conducted with assistance from Parsons UXO Safety Specialist, GPS operator and observation by DTSC. A Schonstedt GA-52/Cx was used to detect subsurface anomalies that potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted at a later date. A total of 20 anomalies were detected and investigated. No UXO or OE scrap were detected, except for 2 expended illumination signals. Small arms ammunition and empty small arms ammunition clips were also observed. A map of the site walk and Table of finds during site walk intrusive investigation is attached. Site walk data gaps occurred when a dense area of overhead vegetation was encountered.

Site OE- 66 November 13, 2003

Site walk conducted with assistance from Parsons UXO Safety Specialist, GPS operator and observation by DTSC. A Schonstedt GA-52/Cx was used to detect subsurface anomalies which potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted at a later date. A total of 4 anomalies were detected and investigated. No UXO or OE scrap was detected. Empty small arms ammunition clips were observed. A map of the site walk and Table of finds during site walk intrusive investigation is attached. Site walk data gaps occurred when a dense area of overhead vegetation was encountered.

Site OE- 13A January 27, 2004

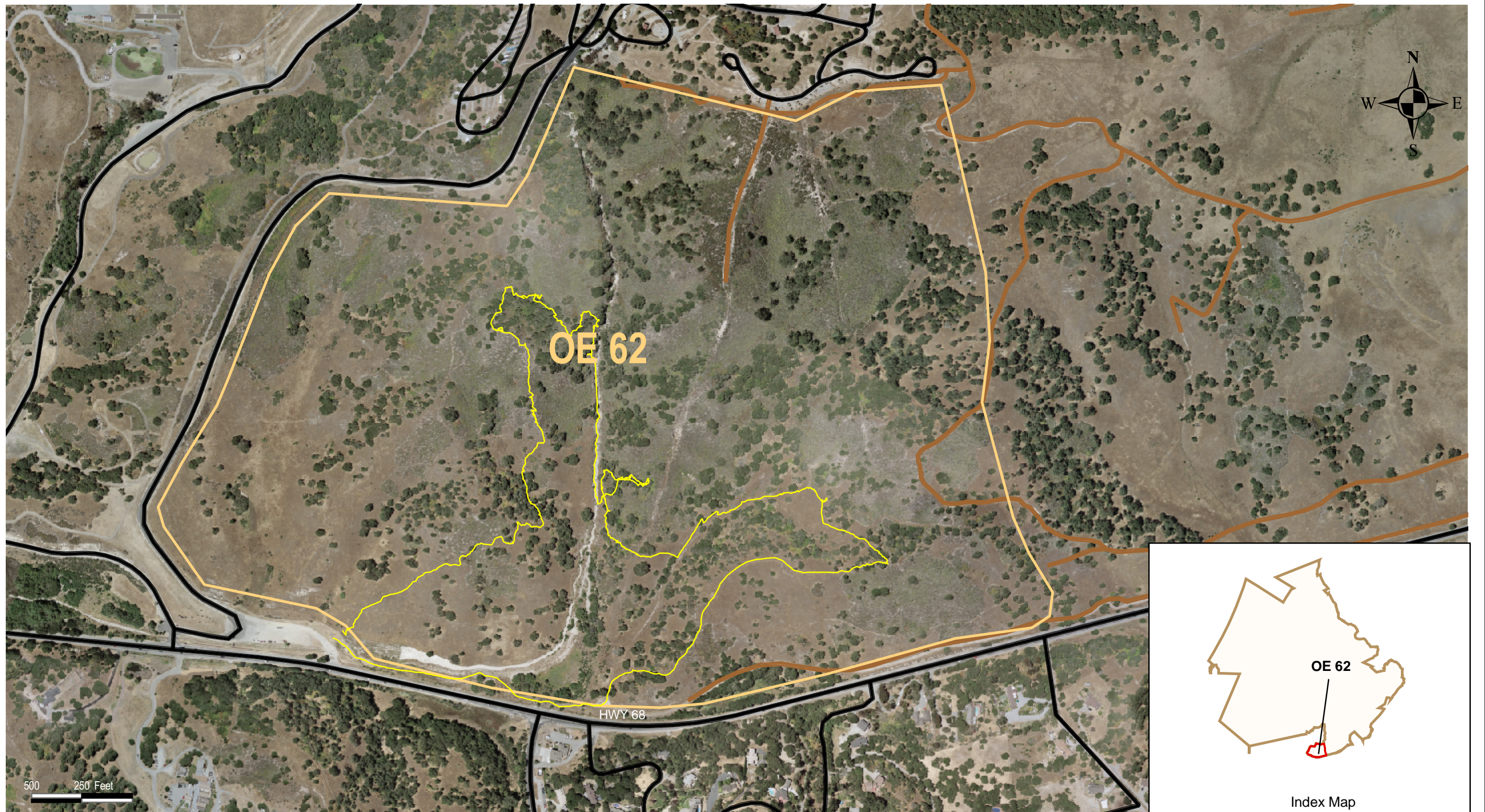
Site walk conducted with assistance from Parsons UXO Safety Specialist, GPS operator and observation by DTSC. A Schonstedt GA-52/Cx was used to detect subsurface anomalies which potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted at a later date. A total of 20 anomalies were detected and investigated. No UXO was detected. One inert 60mm training mortar (OE scrap) was found. Other items found included expended small arms ammunition and empty small arms ammunition clips. A map of the site walk and Table of military related anomalies detected and investigated is attached.

Site OE- 49 March 7, 2004

Site walk conducted with assistance from Parsons UXO Safety Specialist, GPS operator and observation by DTSC. A Schonstedt GA-52/Cx was used to detect subsurface anomalies which potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted at a later date. A total of 20 anomalies were detected and investigated. No UXO was detected. OE scrap items found included an expended smoke grenade, expended smoke signal and a candle housing for a 105mm illumination projectile. Other items found included expended and live blank small arms ammunition, live small arms ammunition, empty ammunition clips, and empty shipping canister for a rifle grenade. A map of the site walk and Table of finds during site walk intrusive investigation is attached. Site walk data gaps occurred when a dense area of overhead vegetation was encountered.

Site OE-6 June 2 and 3, 2004

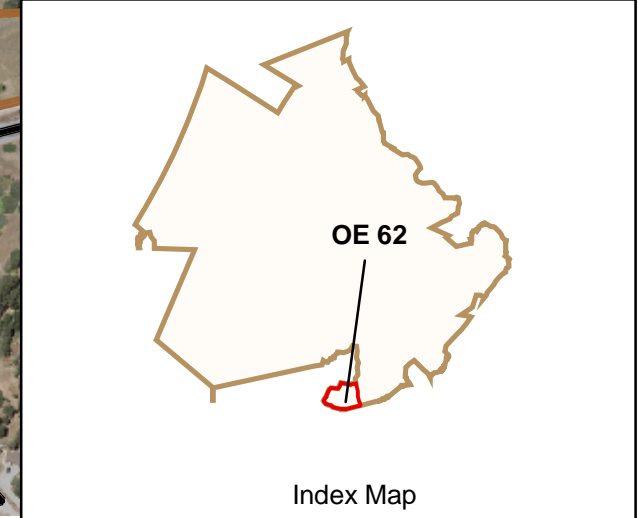
Site walk conducted with assistance from Parsons UXO Safety Specialist and GPS operator. A Schonstedt GA-52/Cx was used to detect subsurface anomalies, which potentially represented UXO or OE scrap. A real-time kinematic GPS was used to track the path of the site walk and record the locations of anomalies. Anomalies were flagged and intrusive investigation was conducted during the site walk. No UXO was detected. OE scrap items found included two expended practice mine fuzes and an expended firing device (M1-type). Other items found included expended and live small arms ammunition. A map of the site walk and Table of finds during site walk intrusive investigation is attached.



OE 62

HWY 68

500 250 Feet



OE 62

Index Map

Legend

- Site Walk (October 2003)
- OE 62; ASR Site Boundary
- Roads, 1999
- Trails, 1999

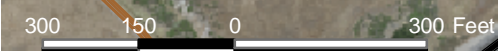
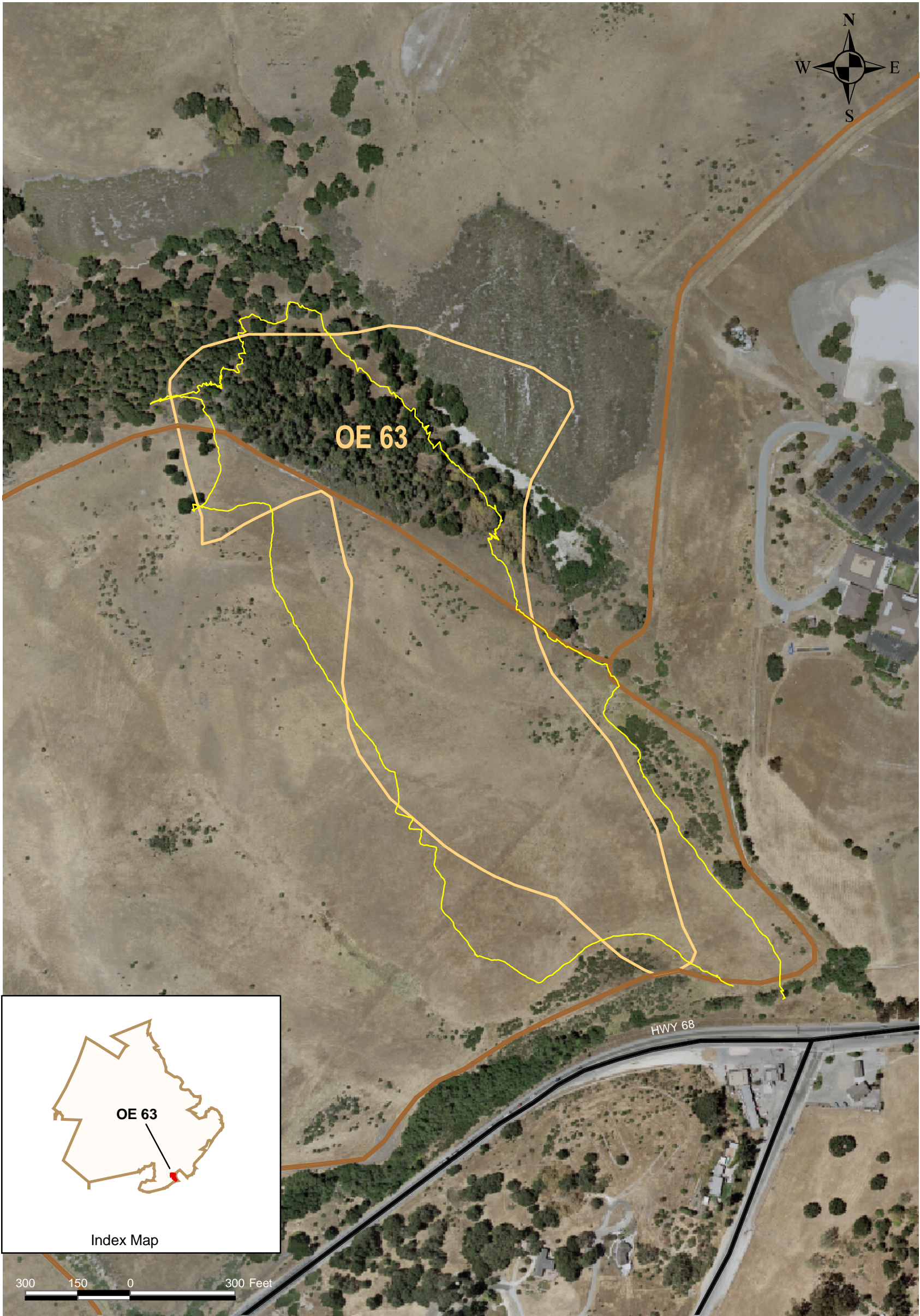


OE 62 Site Walk
 Track 1 OE RI/FS
 Former Fort Ord
 Monterey County, California





PLATE

DRAWN JCB	JOB NUMBER	APPROVED	DATE 6/04	REVISED DATE
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Fort_Ord_GIS - MRS62_sitewalk.mxd



Legend

-  Site Walk (October 2003)
-  Roads, 1999
-  Trails, 1999
-  OE 63; ASR Site Boundary



OE 63 Site Walk
 Track 1 OE RI/FS
 Former Fort Ord
 Monterey County, California

PLATE

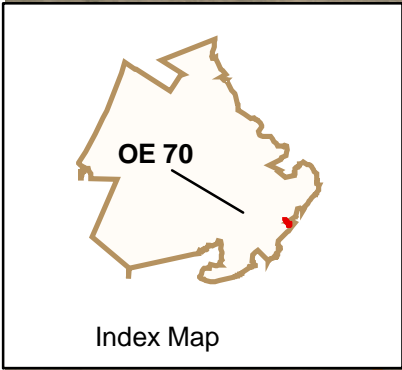
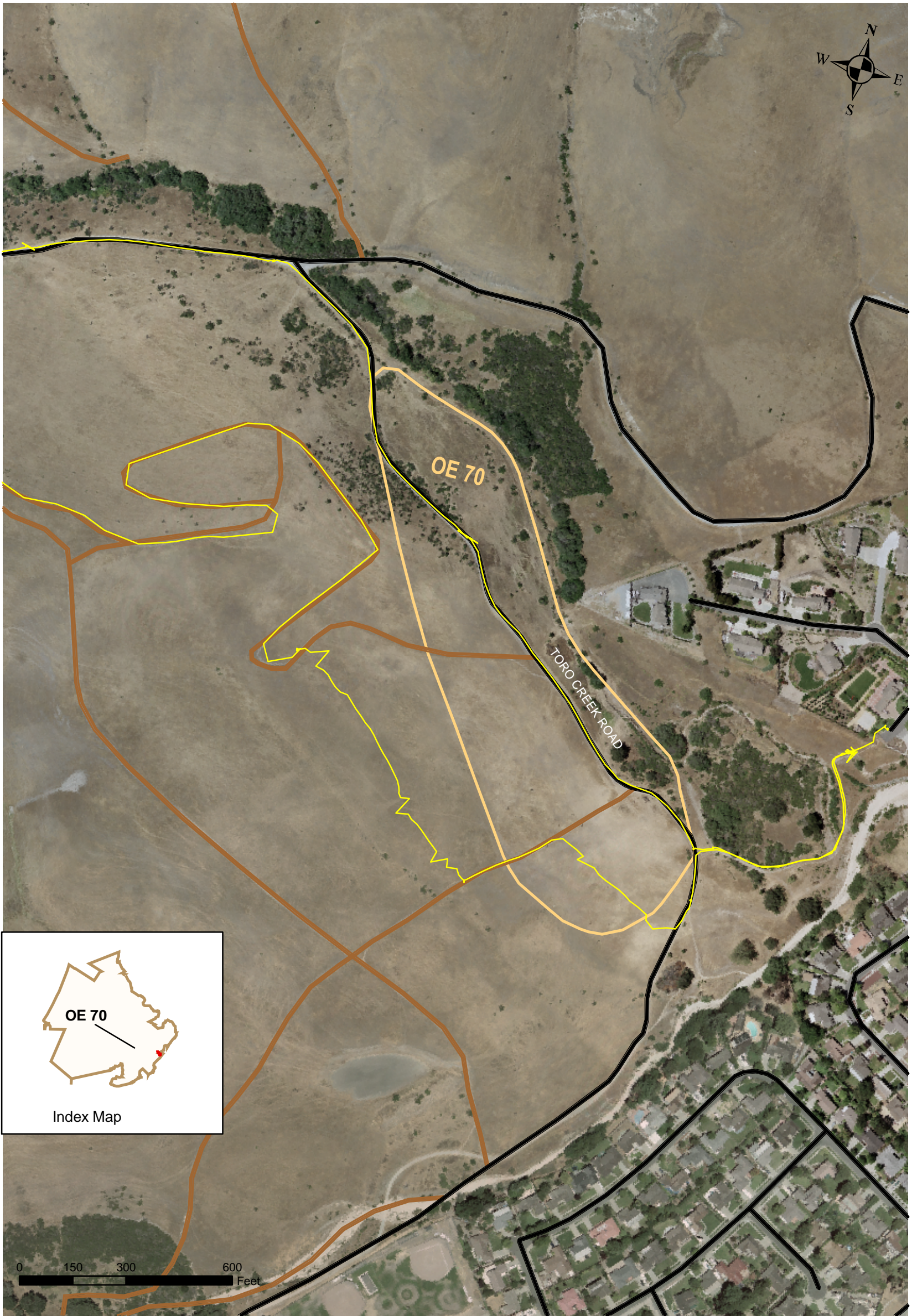
DRAWN
JCB

JOB NUMBER

APPROVED

DATE
06/04

REVISED DATE



Legend

-  Roads, 1999
-  Trails, 1999
-  Site Walk (October 2003)
-  OE 70; ASR Site Boundary



OE 70 Site Walk
 Track 1 OE RI/FS
 Former Fort Ord
 Monterey County, California

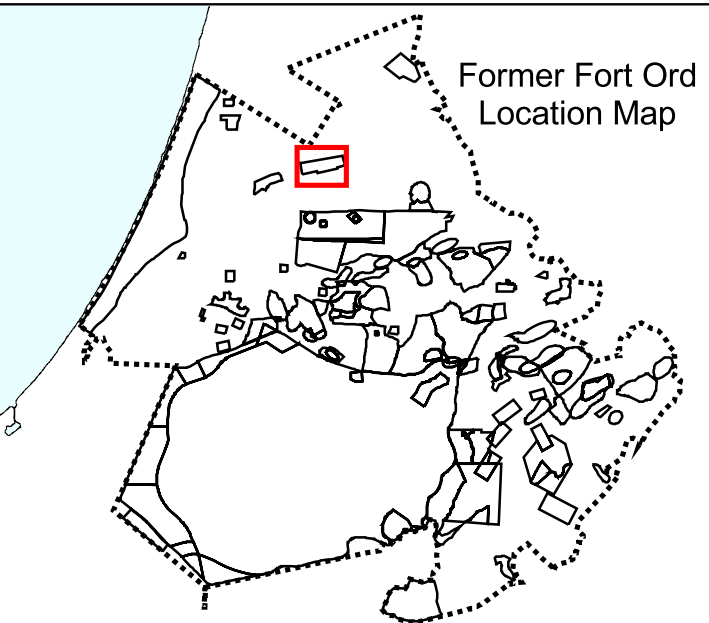
PLATE

Site OE 13A Site Walk (1/27/04)

	Northing	Easting	Description	Depth (inches)	Comments
1	2137085.484	5746354.076	14" piece of wire; 11/2" washer	5	
2	2137109.835	5746419.227	Metal coathanger	3	
3	2137092.297	5746421.35	M-1 small arms clip	4	
4	2137063.017	5746522.543	16" piece of wire	2	
5	2137025.947	5746458.584	5" long bolt	1	
6	2137011.445	5746405.006	Rusty metal pieces	6-8	
7	2136986.267	5746313.899	M-1 small arms clip	1	
8	2136989.596	5746361.414	Pit of nails (qty: 80-100)	22	
9	2136989.841	5746163.542	Nail, 3" long	4	
10	2136908.745	5746150.207	Rusty can	4	
11	2136898.089	5746146.66	M-1 small arms clip; 2 each .30 cal cartridge case (expended)	6	
12	2136896.355	5746153.642	CO2 cartridge 3" long	3	
13	2136833.492	5746438.428	wire, 1" diameter	8	
14	2136804.04	5746443.395	Projectile, 60mm, mortar, training, M69; 30" long bicycle chain; 18" length of nail gun nails	5; 0; 0	Depths are listed respectively; The 60mm mortar was found in an attitude of nose down with an inclination of approximately 10 degree from vertical and an orientation of approximately 160 degree.
15	2136741.513	5746587.501	18" X 1/2" rebar	2	
16	2136445.205	5746477.543	36" X 1" metal tubing	3	
17	2136423.128	5746546.458	8" length wire	5	
18	2136538.14	5747011.294	Commo wire	3	
19	2136522.647	5747044.807	24" length of "T" fence post	3	
20	2136543.358	5747101.55	18" X 12" metal sign	24	
21	2136607.281	5747186.859	Unknown		Dug hole to approximately 48" in depth without encountering anomaly, stopped excavation due to fact that in an area that had new water lines placed in it. See line # 26 comments.

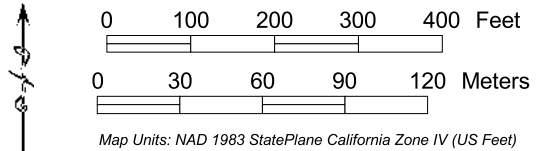
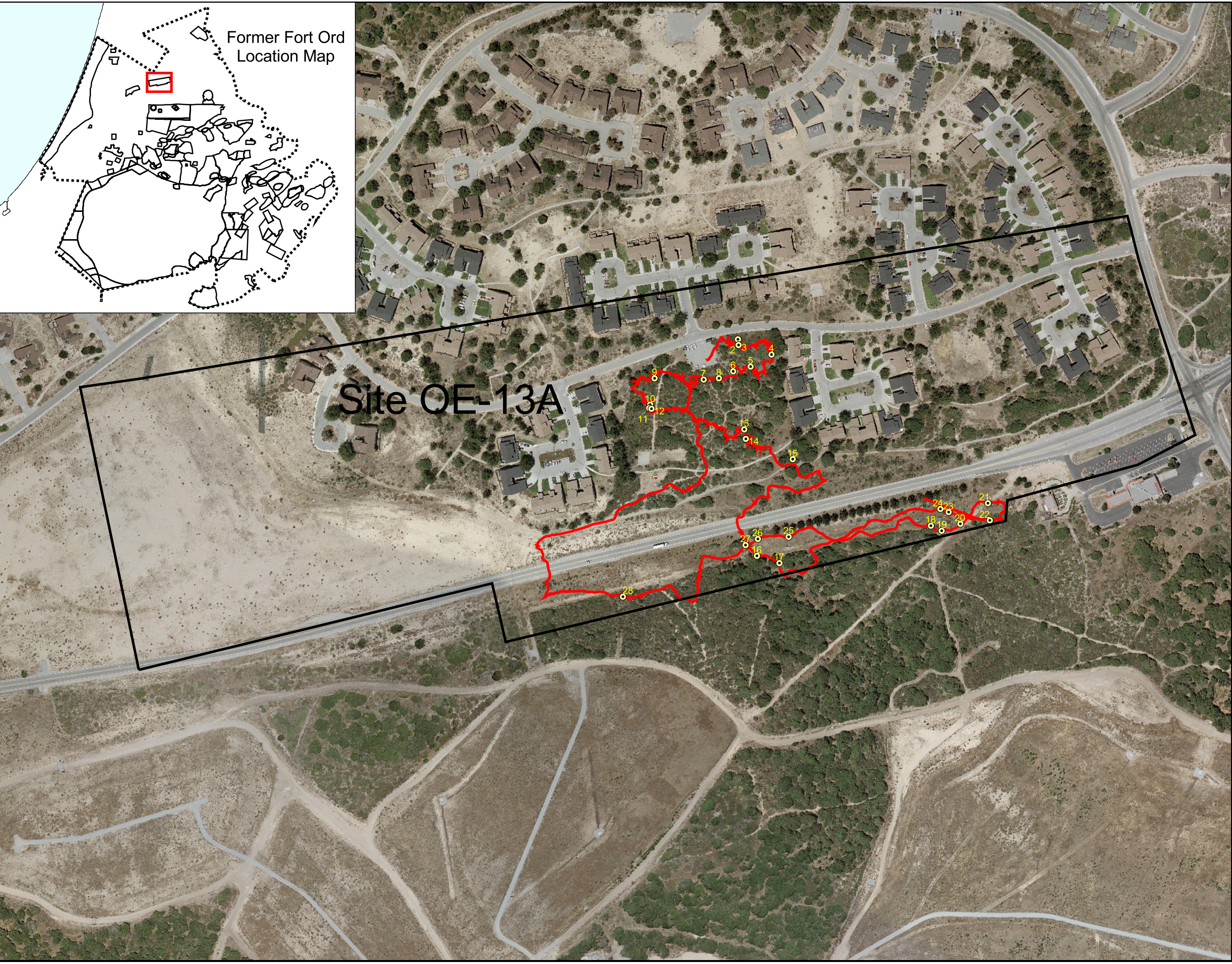
Site OE 13A Site Walk (1/27/04)

	Northing	Easting	Description	Depth (inches)	Comments
22	2136554.104	5747192.717	36" X 1/2" wire	5	
23	2136579.307	5747065.535	Commo wire	24	
24	2136588.877	5747040.133	48 X 1/4" rebar	4	
25	2136503.938	5746575.09	1" X 2" piece of scrap metal	6	
26	2136496.973	5746480.257	New water line	30	Appeared to be a relatively new water line place through this area of MM 13A.
27	2136478.463	5746443.043	24 X 1/2' rebar	8	
28	2136320.171	5746066.423	30" piece of fence wire	6	



**Site Walk
Site OE-13A
March 7, 2004**

- OE Scrap
- Site Walk Path
- OE Site Boundary



US ARMY CORPS
OF ENGINEERS



PARSONS

DESIGNED BY:	DRJ	
DRAWN BY:	DRJ	
CHECKED BY:	ARH	GWG
PRINT DATE:	June 14, 2004 at 2:05 PM	CONTRACT: DACA05-00-D-0003
AERIAL PHOTOGRAPHY:	2003 6"- Resolution Color Aerial	SCALE: 1:3,500
SOURCE OF DATA:	Fort Ord MMRP Database	

**FORMER FORT ORD
MONTEREY, CALIFORNIA**

Results of MRS-5, MRS-59A, and MRS-66
Walkabout Intrusive Investigations

Point Id	Site	Easting	Northing	Depth (Inches)	Description
1	MRS-5	5760059	2130866	22	Hot Soil
2	MRS-5	5760158	2130738	6	Vehicle parts
3	MRS-5	5758359	2130099	1	Barbed Wire
4	MRS-5	5759975	2130755	18	Hot soil
5	MRS-5	5758856	2130402	4	Rusty can
6	MRS-5	5758478	2130260	0	Signal, Illumination, Ground, M125 Series - expended
7	MRS-5	5758341	2130194	3	8" link of chain
8	MRS-5	5758120	2130119	16	.30 cal small arms pit
9	MRS-5	5758066	2130099	7	Rusty can
10	MRS-5	5758128	2130605	1	Fence wire
11	MRS-5	5758109	2130596	0	Small pieces of trip wire
12	MRS-5	5758088	2130578	8	Fence wire
13	MRS-5	5758097	2130546	1	1" diameter X 5' long pipe
14	MRS-5	5758153	2130548	2	.30 cal projos (bullet slugs)
15	MRS-5	5758339	2130498	1	Fence wire
16	MRS-5	5758600	2130766	6 - 12	Fence wire and small arms projos (bullet slugs)
17	MRS-5	5758874	2130754	18	Concrete with re-bar supports
18	MRS-5	5758925	2130746	12	1 1/4" diameter X 16" steel rod
19	MRS-5	5758920	2130724	2	1 1/4" diameter X 14" steel rod
20	MRS-5	5759641	2130717	9	Wire
21	MRS-5	5759676	2130723	0	Wire
100	MRS-59A	5758357	2130097	14	Fence post, 3' feet long
101	MRS-59A	5758157	2129949	8	Small arms, 7.62mm, belt of 16
102	MRS-59A	5758301	2129927	24	Hot soil
103	MRS-59A	5758407	2130023	2	Signal, Illumination, Ground, M125 Series - expended
104	MRS-59A	5758570	2129876	3	Commo wire
105	MRS-59A	5758573	2129845	8	Rusty can
106	MRS-59A	5758645	2129870	3	Wire

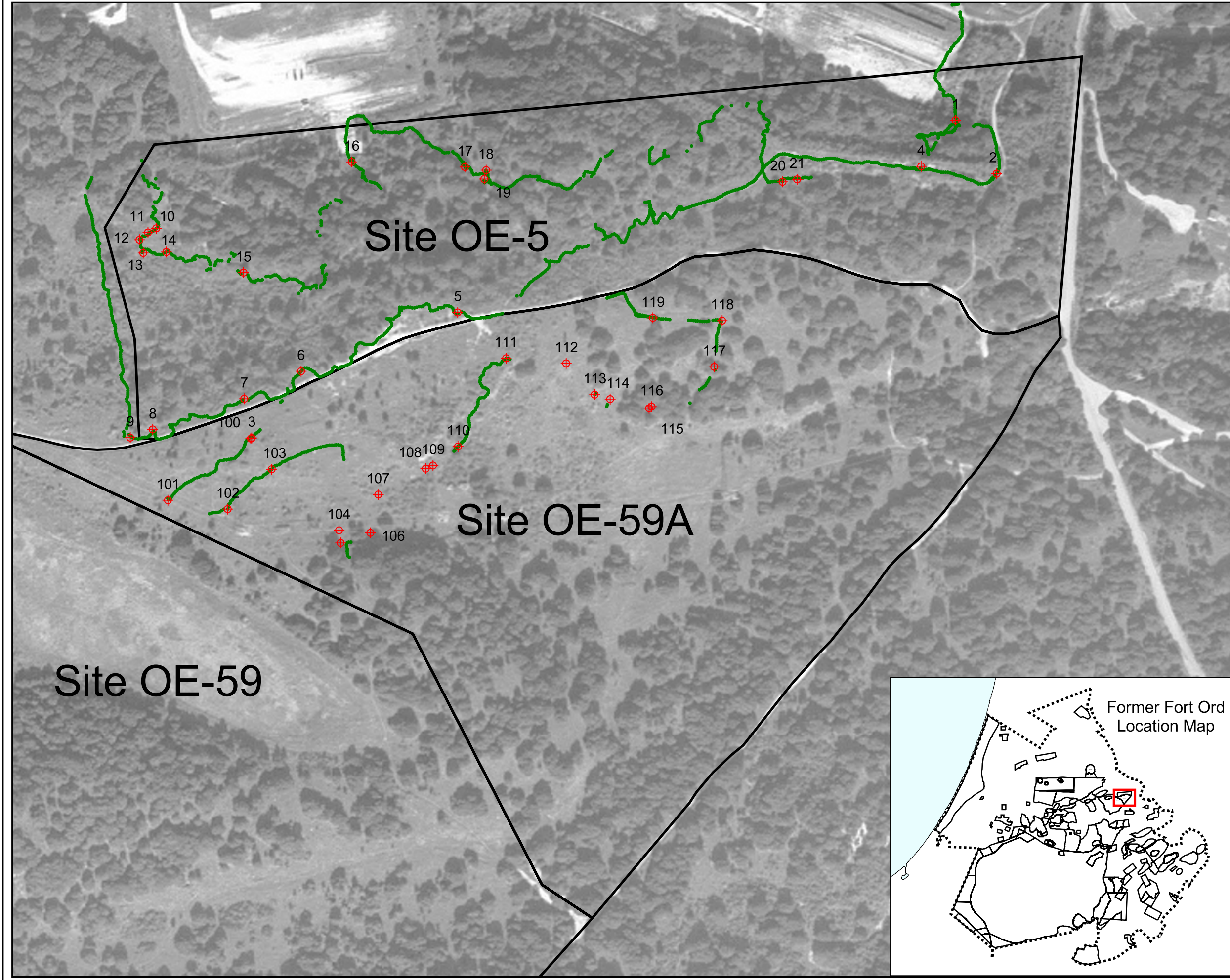
Results of MRS-5, MRS-59A, and MRS-66
Walkabout Intrusive Investigations

Point Id	Site	Easting	Northing	Depth (Inches)	Description
107	MRS-59A	5758664	2129962	4	Rusty can
108	MRS-59A	5758779	2130025	6	Rusty can
109	MRS-59A	5758797	2130033	12	Rusted bucket
110	MRS-59A	5758857	2130079	6	Rusty can
111	MRS-59A	5758973	2130291	18	Fence post
112	MRS-59A	5759118	2130279	0	Signal, Illumination, Ground, M125 Series - expended
113	MRS-59A	5759187	2130204	10	Hot soil
114	MRS-59A	5759225	2130193	12	Rusted metal bracket
115	MRS-59A	5759319	2130171	1	Links
116	MRS-59A	5759325	2130175	6	Rusty can
117	MRS-59A	5759476	2130271	2	Small arms, 7.62mm, belt of 28
118	MRS-59A	5759495	2130383	2	.30 caliber, M-1 clip
119	MRS-59A	5759328	2130389	8	Rusty metal pieces
200	MRS-66	5753953	2135082	1	.30 caliber, M1 Clip
201	MRS-66	5753972	2135071	6	.30 caliber, M1 Clip
202	MRS-66	5753972	2135075	8	P38 Can Opener
203	MRS-66	5753833	2135099	1	Links

Coordinates in California State Plane Zone 4.

Intrusive investigation performed on 11-17-03.

**Site Walk
Sites OE-5 and OE-59A
November 13, 2003**

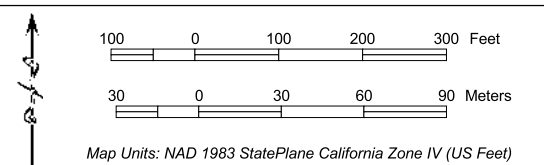
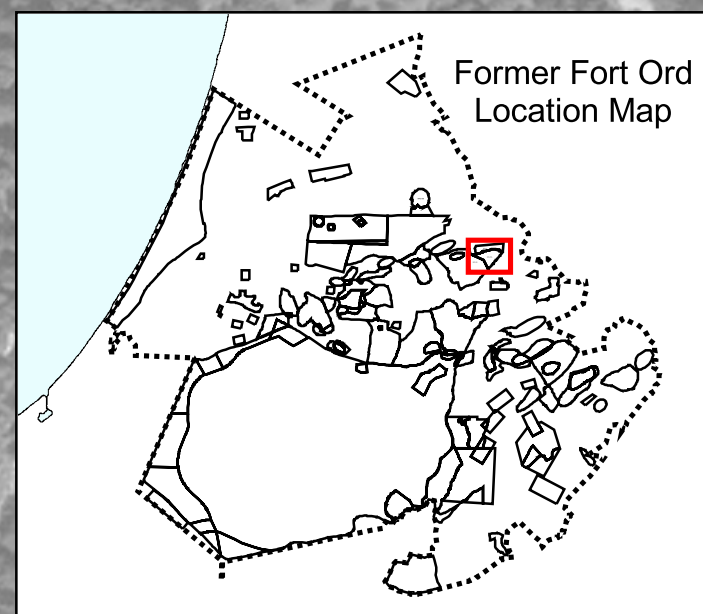


1	Anomalies
●	Site Walk Path
□	OE Site Boundary

Site OE-59

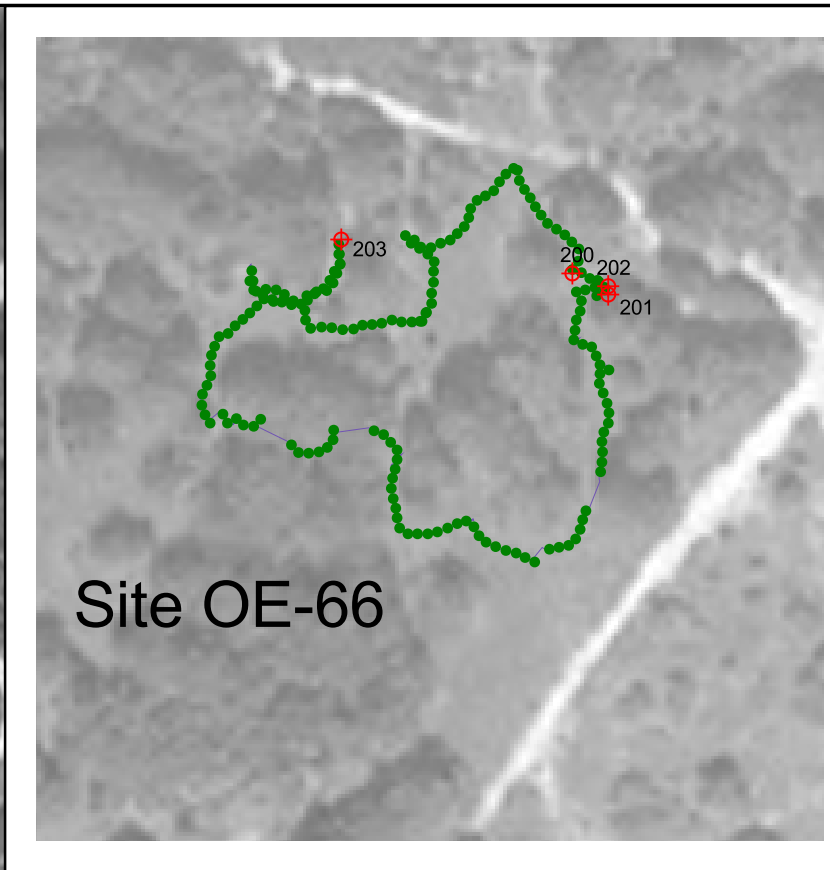
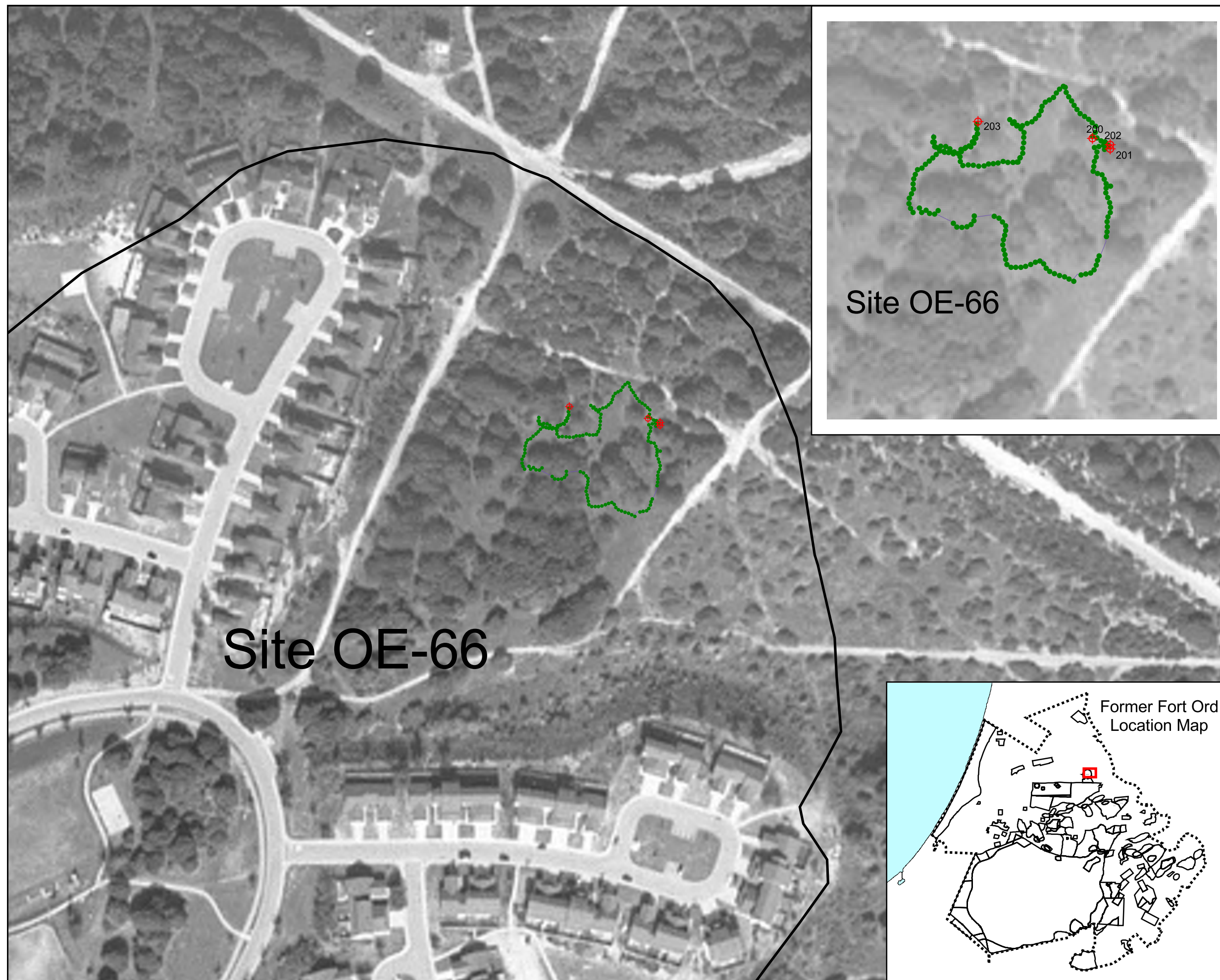
Site OE-5

Site OE-59A



DESIGNED BY: DRJ			FORMER FORT ORD MONTEREY, CALIFORNIA		
DRAWN BY: DRJ					
CHECKED BY: ARH	PRINT DATE: June 14, 2004 at 10:12 AM	CONTRACT: DACA05-00-D-0003			
SUBMITTED BY: GWG	AERIAL PHOTOGRAPHY: 1999 2-ft Resolution Black & White	SCALE: 1:2,750			
SOURCE OF DATA: Fort Ord MM Database					

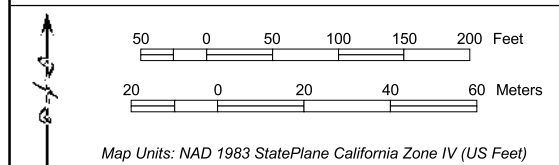
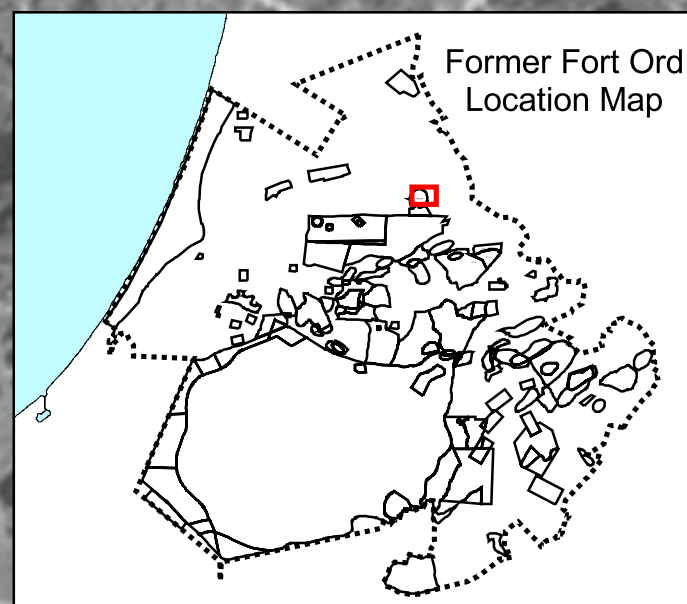
**Site Walk
Site OE-66
November 13, 2003**



201	+	Anomalies
	•	Site Walk Path
	□	OE Site Boundary

Site OE-66

Site OE-66



DESIGNED BY: DRJ			FORMER FORT ORD MONTEREY, CALIFORNIA		
DRAWN BY: DRJ					
CHECKED BY: ARH	PRINT DATE: June 14, 2004 at 10:17 AM	CONTRACT: DACA05-00-D-0003			
SUBMITTED BY: GWG	AERIAL PHOTOGRAPHY: 1999 2-ft Resolution Black & White	SCALE: 1:2,750			
SOURCE OF DATA: Fort Ord MM Database					

DTSC MRS-49
Walkabout Results
April 7, 2004

Point ID	Depth (in.)	Description	Condition	Quantity
3	14	Grenade, Hand, Smoke, M18	Expended	1
7	6	Metal candle housing for 105 mm projo	Expended	1
8	4	M-1 clip; Small arms, .30 cal., blank	Expended	1
9	4	Signal, smoke, ground, M62 series	Expended	1
9	2	Small arms, .30 cal., blank	Expended	25
9	2	Small arms, .30 cal., blank	Live	16
10	6	M-1 clip, empty	Expended	1
11	6	Shipping canister for rifle grenade	Expended	1
13	18	Small arms, .30 cal. (Full ammo can)	Live	250

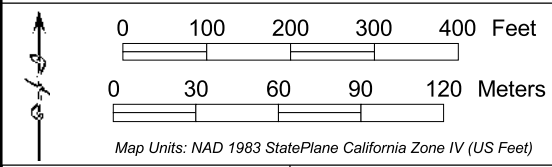
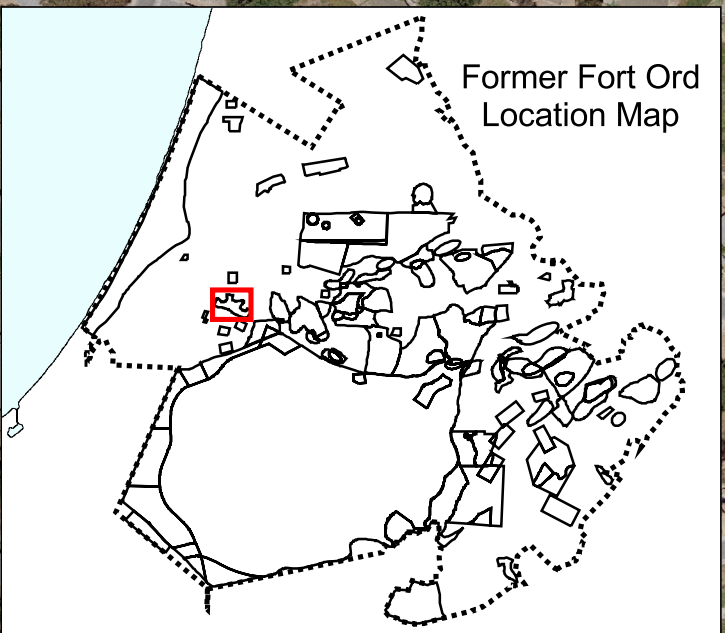
There were many more anomalies investigated during this walkabout. The results were not recorded on these items. A brief summary of the items encountered during these excavations were: wire cable, fence wire, can opener, fence post, 3 foot section of 1/2 inch pipe, metal bucket handle, ect. The items listed above are the only items encountered during this walkabout that were related to military munitions.

**Site Walk
Site OE-49
March 7, 2004**

-  OE Scrap
-  Site Walk Path
-  OE Site Boundary

Site OE-49

8 10
9 11 7 3



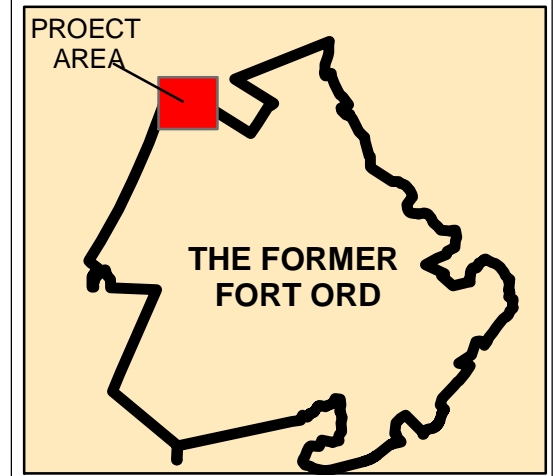
DESIGNED BY: DRJ	FORMER FORT ORD MONTEREY, CALIFORNIA	
DRAWN BY: DRJ		
CHECKED BY: ARH	PRINT DATE: June 14, 2004 at 10:39 AM	CONTRACT: DACA05-00-D-0003
SUBMITTED BY: GWG	AERIAL PHOTOGRAPHY: 2003 6"- Resolution Color Aerial	SCALE: 1:2,750
	SOURCE OF DATA: Fort Ord MMRP Database	

Site OE-6
Site Walk
June 2 and 3, 2004

Site	Description	Condition	Quantity
Site OE-6	Mine Fuzes, for M1 practice mines	Expended	2
Site OE-6	Small Arms Ammunition	Live	Not Quantified
Site OE-6	Firing Device, M1-type	Expended	1
Site OE-6	Hand Grenade Safety Lever	Inert	1
Site OE-6	Blank Small Arms Ammunition	Expended	Not Quantified




**SITE OE-6
SITE WALK PATH**



- Items Encountered**
- Mine Fuse
 - Small Arms Ammunition
 - Firing Device
 - Hand Grenade Safety Lever
 - Visual Path (06/02/04)
 - Visual Path (06/03/04)
 - Historic Sample Grids
 - Site OE-6 Boundary
 - Fort Ord Boundary


 Map Units: NAD 1983 StatePlane California Zone IV (US Feet)


 U.S. ARMY CORPS
 OF ENGINEERS

**FORMER FORT ORD
MONTEREY, CALIFORNIA**

PRINT DATE: Jun 02, 2004 at 04:48 PM	SOURCE OF DATA: Fort Ord MMRP Database
AERIAL PHOTOGRAPHY: 2003 Color Aerial photo	SCALE: 1:1,900
DRAWN BY: Cary.A.Stiebel@usace.army.mil	
FILE: GIS_ProjectMMmrs06.mxd	