# FORA Independent QA FORA Independent QA Reports

Parker Flats Phase II MRA, Former Fort Ord



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Ref.: 28-006

Mr. Stan Cook Fort Ord Reuse Authority 100 12<sup>th</sup> Street Building 2880 Marina, CA 93933

### <u>Third-Party Quality Assurance (QA) Oversight Services</u> <u>For</u> <u>Parker Flats MRA Phase II Remedial Investigation/Feasibility Study</u> <u>Work Areas 1 & 2 (Parcels E19a.4, E19a.2 & E19a.3)</u> <u>Digital Geophysical Mapping and Analog Clearance</u> <u>Former Fort Ord Facility, Monterey, California</u>

Dear Mr. Cook:

Engineering/Remediation Resources Group, Inc. (ERRG) is pleased to submit this Quality Assurance (QA) oversight report related to munitions and explosives of concern (MEC) activities at the former Fort Ord Facility. ERRG in partnership with our team member InDepth, Inc conducted provided MEC QA oversight and geophysical QA oversight respectively.

We appreciate this opportunity to provide you with this interim report. If you have any questions or need additional information, please do not hesitate to contact me at (623) 266-9532. Thank you.

Sincerely,

Francis M Ch

Frank Cota MEC Operations Manager

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# **Acronyms and Abbreviations**

| AOC     | Administrative Order on Consent                                       |
|---------|---|
| Army    | United States Army  |
| CERCLA  | Comprehensive Environmental Response, Compensation, and Liability Act |
| DGM     | digital geophysical mapping   |
| DQOs    | data quality objectives   |
| ERRG    | Engineering/Remediation Resources Group, Inc.                         |
| ESCA    | Environmental Services Cooperative Agreement                          |
| FORA    | Fort Ord Reuse Authority  |
| MEC     | munitions and explosives of concern                                   |
| QA      | quality assurance   |
| QC      | quality control   |
| QAOP    | quality assurance oversight professional                              |
| QASP    | Quality Assurance Surveillance Plan                                   |
| RI/FS   | Remediation Investigation/Feasibility Study                           |
| SOP     | Standard Operating Procedure  |
| U.S.EPA | United States Environmental Protection Agency                         |
| UXO     | unexploded ordnance   |
| Weston  | Weston Solutions Inc.   |

# Section 1. Introduction

In Spring 2005, the U.S. Army (Army) and the Fort Ord Reuse Authority (FORA) entered into negotiations to execute an Army-funded Environmental Services Cooperative Agreement (ESCA) leading to the transfer 3,340 acres of former Fort Ord prior to regulatory environmental sign-off. In early 2007, the Army awarded FORA a grant to perform munitions cleanup on the ESCA parcels. FORA also entered into an Administrative Order on Consent (AOC) with U.S. Environmental Protection Agency (U.S. EPA) and California Department of Toxic Substance Control, defining conditions under which FORA assumes responsibility for the Army remediation of the ESCA parcels. In order to complete the AOC defined work; FORA entered into a Remediation Services Agreement with Levine Fricke-Recon Inc. (LFR) to provide Munitions and Explosives of Concern (MEC) remediation services who partnered with Weston Solutions (Weston) to provide the actual MEC removal services. FORA, having the responsibility for management and quality of the ESCA remediation Resources Group, Inc. (ERRG) as an independent third-party Quality Assurance Oversight Professional (QAOP) to implement the QASP.

The QA efforts by ERRG in support of the Parker Flats MRA Phase II Remedial Investigation/Feasibility (RI/FS) Study - Parcels E19a.4, E19a.2, and E19a.3 have been implemented in compliance with the QASP in an effort to satisfy regulatory concerns. It is recognized that a MEC removal action may not successfully acquire and recover all MEC at the Munitions Response Site. The regulatory agencies have expressed concern regarding the residual risk that remains after MEC removals have taken place, particularly in areas that are slated for residential development (i.e., unrestricted land use). The effort is also intended to satisfy the requirements of the ESCA for the Parker Flats MRA Phase II RI/FS.

# Section 2. Weston QA Efforts

The Weston team developed a quality assurance (QA)/quality control (QC) project plan to provide unbiased evidence of the quality of the data acquired and decisions made during the MEC investigations, as evaluated against the measurement performance criteria described in the Final Group 1 RI/FS Work Plan, Volume 2. The measurement performance criteria established are called Data Quality Objectives (DQOs). The primary methods used to provide evidence of compliance with DQOs are:

- Prequalification of policies and procedures
- Acceptable performance on test grids
- Auditing of field activities
- Acceptance sampling of completed work

The FORA ESCA Remediation Program (ESCA RP) is committed to using the Best Available (and appropriate) Detection Technology for locating subsurface MEC as established by the Ordnance Detection and Discrimination Study and subsequent projects. Where there were physical impediments to the use of Digital Geophysical Mapping (DGM), manual analog detection technologies were used.

The evaluation of each operation was accomplished through auditing. There were two methods of auditing employed, performance and procedural auditing. Performance audits were accomplished by burying a MEC simulant within the project boundaries (A procedure known as "Blind Seeding".). The system performance was evaluated based on whether the MEC simulant is located and recovered. Procedural audits were accomplished by checking the field operations against the policies and procedures in place.

Blind seed items were placed within areas investigated. The Unexploded Ordnance Quality Control Specialist in consultation with the Remediation Project Manager and determined the locations of the seed items. Seeds were located using a survey-grade GPS or equivalent within DGM grids. The blind seeds consist of equivalent MEC item simulants, buried no greater than the depth interval at which a 100% Possibility of Detection (Pd) was determined for the geophysical instrumentation used. The locations of the seed items were not disseminated to the other project personnel. QC and QA personnel reviewed the DGM data against the seed locations. Blind seed items were also placed in near-surface investigation area grids as a quality indicator.

ERRG's continuous review of the Weston team's implementation of the project QC/QA Plan resulted in no deficiencies noted in the Parker Flats MRA Phase II RI/FS - Parcels E19a.4, E19a.2, and E19a.3. Field inspection reports are located in Appendix B.

# Section 3. FORA QA Efforts

Having the responsibility for management and quality of the ESCA remediation program, FORA developed a QASP and hired ERRG as an independent third-party QAOP to implement the QASP. The QASP addresses specific Comprehensive Environment Response, Compensation, and Liability Act (CERCLA) requirements pursuant to the terms and conditions of the ESCA RP Programmatic and Site Specific Work Plans (Work Plan) governing the removal of remnant munitions and explosives of concern. The QASP objectives are to:

- Set forth procedures and guidelines that the independent third-party QAOP applies to monitor and evaluate the quality and safety of the Weston Team field work and related documentation.
- Outline procedures for working with the Weston Team to monitor their Quality Control QC/QA Program.
- Outline procedures for correcting deficiencies.

The surveillance methods utilized by the QAOP included:

- 100% Inspection At the completion of key milestones, performance was evaluated through 100% inspection (e.g., document review).
- Periodic Progress Inspection Periodic inspections may be conducted to evaluate progress toward and/or completion of key milestones and deliverables.
- Performance Metrics Two categories qualitative and quantitative have been established. Tasks
  that can be physically measured or evaluated are in the quantitative category, while tasks that are
  more subjective are in the qualitative category. Qualitative assessments/observations as observed by
  the Quality Assurance Oversight Professionals were entered in the comments block of the Quality
  Assurance Report (Appendix B).

The QAOP evaluated the Weston Team's program quality performance through the following methods:

- Review of Quality Control documentation and activities
- Qualitative review of Quality Control data for Instrument Functionality Checks
- Qualitative review of Quality Control root causes failure analyses.
- Observe adherence to the approved explosive safety submissions
- Observe work plan implementation and adherence
- Observe field activities
- Provide additional independent third-party blind seeding of DGM areas and perform dig sheet review for detection and recovery of blind seed items.
- Review of MEC waste management documentation

# Section 4. Digital Geophysical Mapping QA Procedures

ERRG has partnered with In-Depth to provide the services of a registered California Geophysicist, Mr. Brian Hecker, to provide Digital Geophysical Mapping Services QA Services. Digital QA procedures performed by the QAOP included the observation of Weston team field QC procedures and activities Weston, conducting and collecting site-specific data to comprehensively analyze the entire digital geophysical survey including data acquisition, processing and interpretation. A seeding program was implemented to in accordance with the FORA QASP. Monitoring of digital geophysical activities included:

- Operator performance
- Equipment performance
- Operator/Equipment procedures
- Unexploded ordnance (UXO) detection to depths of concern
- Removal of UXO of concern

### 4.1 OPERATOR PERFORMANCE

The Weston Geophysical instrument operators were evaluated by the QA Geophysicist observing their instrument operation, data acquisition, and reacquisition procedures. Geophysical data processors were evaluated by analyzing the quality of the data processing, as shown in the processed data files and the target selection/interpretation results listed in the dig sheets. Appendix A contains detailed results of the operator performance auditing.

### 4.2 MONITORING DIGITAL FIELD DATA ACQUISITION

The QA geophysicist evaluated the acquired and processed data. Data that indicated any of the following issues was noted:

- Data gaps along survey lines.
- Unreasonable data (e.g., systematic "spikes" or noise)
- Data incongruity across survey grids
- Inadequate data density along survey traverse
- Lack of accurate, precise locations; survey line orientation
- Inadequate/incomplete site survey coverage

Missing, incomplete, or noncompliant instrument standardization checks

Appendix A contains detailed results of digital field data acquisition and processing.

### 4.3 THE QAOP QA SEEDING PROGRAM

A QAOP QA seeding program was implemented to provide an evaluation of Weston's capabilities to detect specific MEC at the highest levels of quality and to evaluation the spatial survey coverage of the investigation area. Industry accepted simulants consisting of 1" x 4" Pipe were used to satisfy this design component. Each simulant was identified and inventoried with a serial number for identification after recovery.

QA blind seeding actions were performed in accordance with the ERRG QA Blind Seed Standard Operating Procedure (SOP) (Appendix D). As specified in the ERRG Blind Seed SOP, at the time of emplacement the blind seed's depth, bearing, attitude and locations were recorded, documented and tracked by the QA Specialist to ensure their confidentiality and to maintain the validity of QA seed objectives. This blind seed placement provided a method to check survey detection ability and UXO team anomaly investigation confidence.

The QA seed tracking documents, provided in Appendix B, contain seed numbers and location information, such as GPS coordinates, and were strictly maintained by the ERRG QA Manager to ensure confidentiality until their discovery. Blind seed discovery was initially recorded by Weston in the Data GAP Seed Report and reviewed by the ERRG QA Manager to validate the discovered blind seed's location with the afore mentioned QA blind seed tracking documents. As verified by the ERRG QA Manager, Weston's discovery of all the QA emplaced blind seeds assures anomaly detection capability and thorough clearance of excavations of all anomalies.

All seed items placed were found during the Weston target investigations in DGM survey areas located in Parker Flats MRA Phase II RI/FS Parcels E19a.4, E19a.2, and E19a.3. Field reports located in Appendix B detail the placement of the QA seeds. Appendix C contains details of the Weston Team's reporting of seeds recovered.



May 18, 2010

Mr. Frank Cota ERRG, Incorporated 185 Mason Circle, Ste A Concord, California 94520

### Subject: DRAFT FINAL FORA Parker Flats DGM Areas 1-7 and Habitat Trails RI/FS DGM QA Resurvey Report Former Fort Ord Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Parker Flats MRA RI/FS Phase II Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord, Parker Flats investigation area of the Habitat trails and DGM Areas 1 through 7. This review was performed using the data available within the February 2, 2010 data transmittal provided by Mark Saunders of Weston, Inc. and DGM QA resurvey data obtained on March 29 and 30, 2010.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Parker Flats MRA RI/FS Phase II DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout the Habitat Trails and DGM Areas 1 through 7. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for all of the investigation areas identified covering a total area of approximately 36 acres; 26 acres in Areas 1 through 7 and approximately 10 acres throughout the Habitat Trails. InDepth also performed a QA resurvey of 5.3 acres, representing approximately 15% of the area investigated by Weston, Inc; 2.7 acres in Areas 1 through 7 and approximately 2.6 acres throughout the Habitat Trails. InDepth's findings indicated that the data were of sufficient quality to adequately support the RI/FS goals of evaluation for nature and extent of MEC hazards within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

# **DGM QA DATA EVALUATION PROCEDURES**

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set

Mr. Frank Cota May 18, 2010 DRAFT FINAL FORA Parker Flats Areas 1-7 and Habitat Trails RI/FS DGM QA Resurvey Report Page 2 of 5

included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

# PARKER FLATS AREAS 1-7 AND HABITAT TRAILS DGM DATA EVALUATION RESULTS

Data evaluation was performed for the Parker Flats Area 1-7 and Habitat Trails DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan. Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan.

Evaluation of transect spacing for these data sets indicated that all of the areas investigated exhibited data acquisition gaps between array transects of sufficient in size for the smallest munition items of concern to be missed. This condition was known to the geophysical contractor during the RI/FS investigation. It was remedied by using intrusive teams to perform detector aided real-time investigations throughout all of the grids after the initial geophysical targets had been investigated and removed, to achieve the goals of the RI/FS investigation.

# PARKER FLATS AREAS 1-7 AND HABITAT TRAILS DGM QA RESURVEY

**Parker Flats Area 1 QA Resurvey Results.** The QA resurvey in the Area 1 QA polygon comprised a rectangular polygon approximately 100 ft by 180 ft resulting in 18,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 36 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Eight of the 36 DGM QA targets were located within 3.0 feet of a Weston selected DGM target. Intrusive investigation of these 36 targets resulted in seven no-contacts (false-positives), one piece of MEC related debris and 28 small metallic items, as shown in Table 3. The MEC related debris item was identified as an M8 practice mine-body that was encountered 24 inches below ground surface and exceeded the size for the smallest munition item of concern.

Although the mass of the recovered object was greater than the mass of a 37mmprojectile it was selected as a target in both the production and QA surveys. Therefore, the Parker Flats Area 1 QA Resurvey meet the work plan QC objectives.

**Parker Flats Area 2 QA Resurvey Results.** The QA resurvey in the Area 2 polygon comprised a rectangular polygon approximately 100 ft by 200 ft resulting in approximately 20,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and eight geophysical anomalies selected as targets for

Mr. Frank Cota May 18, 2010 DRAFT FINAL FORA Parker Flats Areas 1-7 and Habitat Trails RI/FS DGM QA Resurvey Report Page 3 of 5

further investigation, as indicated in Tables 1 and 2. One of the eight DGM QA targets was located within 3.0 feet of a Weston selected DGM target. Intrusive investigation of these targets resulted in no false-positives, two corner stakes and six small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Area 2 QA Resurvey meet the work plan QC objectives.

**Parker Flats Area 3 QA Resurvey Results.** The QA resurvey in the Area 3a and 3b polygons comprised two rectangular polygons approximately 100 ft by 190 ft resulting in 19,000 ft<sup>2</sup> and 100 ft by 150 ft resulting in 15,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and fourteen total geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Five of the fourteen DGM QA targets were located within 3.0 feet of a Weston selected DGM target. Intrusive investigation of these targets resulted in no false-positives, one grounding rod, one trash pit and twelve small metallic items, as shown in Table 3. The mass of the recovered objects were less than the mass of a 37mm projectile. Therefore, the results of the Parker Flats Area 3 QA Resurvey meet the work plan QC objectives.

**Parker Flats Area 4 QA Resurvey Results.** The QA resurvey of the Area 4 polygon comprised a rectangular polygon approximately 133 ft by 133 ft resulting in 17,689 ft<sup>2</sup> of DGM QA resurvey coverage, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and twenty-two total geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the twenty-two DGM QA targets were located within 3.0 feet of a Weston selected DGM target. Intrusive investigation of these targets resulted in two false-positives and twenty small metallic items, as shown in Table 3. The mass of the recovered objects were less than the mass of a 37mm projectile. Therefore, the results of the Parker Flats Area 4 QA Resurvey meet the work plan QC objectives.

**Parker Flats Area 5 QA Resurvey Results.** The QA resurvey of the Area 5 polygon comprised a rectangular polygon approximately 160 ft by 99 ft resulting in approximately 15,840 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 5. The QA DGM resurvey resulted in a site characterized by background readings and two geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Intrusive investigation of these two targets resulted in no false-positives and two small metallic items, as shown in Table 3. The mass of the recovered objects were less than the mass of a 37mm projectile. Therefore, the results of the Parker Flats Area 5 QA Resurvey grid meet the work plan QC objectives.

**Parker Flats Area 6/7 QA Resurvey Results.** The QA resurvey in of the Area 6/7 polygon comprised a rectangular polygon approximately 110 ft by 100 ft resulting in approximately 11,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 6. The QA DGM resurvey resulted in a site characterized by background readings and two geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Intrusive investigation of these two targets resulted in one false-positive and one small metallic item, as shown in Table 3. The mass of the

Mr. Frank Cota May 18, 2010 DRAFT FINAL FORA Parker Flats Areas 1-7 and Habitat Trails RI/FS DGM QA Resurvey Report Page 4 of 5

recovered objects were less than the mass of a 37mm projectile. Therefore, the results of the Parker Flats Area 6/7 QA Resurvey meet the work plan QC objectives.

**Parker Flats Habitat Trails QA Resurvey Results.** The QA resurvey in the Habitat Trails area of Parker Flats consisted of re surveying the Red, White, and Blue trails, resulting in 76,814, 15,390, and 22,338, sq-ft of investigation area respectively for a combined QA resurvey investigation foot-print of 114,542 square feet , as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings with 31 geophysical anomalies selected for further investigation, as indicated in Tables 1 and 2. Two of the 31 DGM QA targets were located within 3.0 feet of a Weston selected DGM target. Intrusive investigation for all of these targets resulted in 5 false-positives, 4 items of MEC related debris, and the remaining targets were associated various pieces of scrap metal, as shown in Table 3. Two of the MEC related debris items were identified outside the boundary of the original DGM data. The other two MEC related debris items were identified inside the boundary of a known DGM data gaps.

The mass for each of the recovered objects, within the Parker Flats Habitat Trails area, was less than the mass of a 37mm projectile. Therefore, the results of the QA-resurvey within this area meet the work plan QC objectives.

# PARKER FLATS AREAS 1-7 AND HABITAT TRAILS RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met and exceeded the data density requirements along line (sample spacing) but not with respect to transect spacing as indicated within the QAPP and work plan.

Intrusive investigation for all of these 115 targets resulted in 15 false-positives, 5 items of MEC related debris; the remaining targets were associated various pieces of scrap metal, trash pits, and survey control spikes, as shown in Table 3. . Only one of the MEC related debris items had a mass greater than an MK2 grenade. This item was identified as a M8 practice mine-body and located during the QA Intrusive Investigation in Area 1 and was found within 1.5 feet of an existing Weston DGM target. Because this target was identified within both the production data and the QA data it is not deemed a failure of the DGM process.

# **CONCLUSIONS AND RECOMMENDATIONS**

The results of the Parker Flats Habitat Trails and Area 1-7 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track data spacing. However, these data do not meet the cross track transect spacing criteria identified in the QAPP. This condition was known to Weston during the investigation and deemed acceptable for the RI/FS goal of determining nature and extent of the potential MEC contamination. In accordance with the work

Mr. Frank Cota May 18, 2010 DRAFT FINAL FORA Parker Flats Areas 1-7 and Habitat Trails RI/FS DGM QA Resurvey Report Page 5 of 5

plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Parker Flats Habitat Trails and Area 1-7 DGM QA Resurvey one DGM QA target was identified within 1.5 feet of an existing Weston DGM target that resulted in the discovery of an M8 practice mine-body. Because this target was identified within both the production data and the QA data it is not deemed a failure for the DGM process. It is recommended that Weston perform a root-cause-analysis to determine the reason this item remained within the investigation area.

# STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

Respectfully, InDepth Corporation

Brin Hecker

Brian W. Hecker Senior Geophysicist, G.P. 991

Enclosures:

QA Resurvey Investigation Summary and Target Tables QA Resurvey Data Evaluation Figures

cc: file

# Table 1.

DGM QA Investigation Summary FORA Roadway and Utility Corridor QA Report Former Fort Ord, Seaside MRS 1 through 4 Monterey County, California

| Geophysical<br>Operation | Parker Flats<br>Area<br>Designation | Total Area<br>Investigated<br>(sqft) | Number of<br>Targets |
|--------------------------|-------------------------------------|--------------------------------------|----------------------|
| QA Resurvey              | DGM Area 1                          | 18000                                | 36                   |
| QA Resurvey              | DGM Area 2                          | 20000                                | 8                    |
| QA Resurvey              | DGM Area 3a                         | 19000                                | 13                   |
| QA Resurvey              | DGM Area 3b                         | 15000                                | 1                    |
| QA Resurvey              | DGM Area 4                          | 17689                                | 22                   |
| QA Resurvey              | DGM Area 5                          | 15840                                | 2                    |
| QA Resurvey              | DGM Area 6/7                        | 11000                                | 2                    |
| QA Resurvey              | Blue Trail                          | 22338                                | 8                    |
| QA Resurvey              | Red Trail                           | 76814                                | 21                   |
| QA Resurvey              | White Trail                         | 15421                                | 2                    |

# Table 2.

# DGM QA Target List FORA Roadway and Utility Corridor QA Report Former Fort Ord, Seaside MRS 1 through 4 Monterey County, California

| Darkor Elate |             | Fasting     | Northing    | Target   |       |
|--------------|-------------|-------------|-------------|----------|-------|
|              | Torgot Nome |             |             | Response | Unito |
| Area         | Target Name |             |             | Value    | Units |
| Designation  |             | Feet)       | Feet)       | (Sum)    |       |
| QA_PFA1      | QA_PFA1_01  | 5745328.000 | 2129013.500 | 51.9     | mV    |
| QA_PFA1      | QA_PFA1_02  | 5745373.500 | 2129015.000 | 53.7     | mV    |
| QA_PFA1      | QA_PFA1_03  | 5745299.500 | 2129050.500 | 93.0     | mV    |
| QA_PFA1      | QA_PFA1_04  | 5745330.000 | 2129051.000 | 51.5     | mV    |
| QA_PFA1      | QA_PFA1_05  | 5745220.000 | 2129056.500 | 164.5    | mV    |
| QA_PFA1      | QA_PFA1_06  | 5745340.500 | 2129057.000 | 69.1     | mV    |
| QA_PFA1      | QA_PFA1_07  | 5745337.000 | 2129063.000 | 72.3     | mV    |
| QA_PFA1      | QA_PFA1_08  | 5745210.500 | 2129065.000 | 51.6     | mV    |
| QA_PFA1      | QA_PFA1_09  | 5745342.000 | 2129067.000 | 289.1    | mV    |
| QA_PFA1      | QA_PFA1_10  | 5745327.000 | 2129069.000 | 50.3     | mV    |
| QA_PFA1      | QA_PFA1_11  | 5745334.000 | 2129069.000 | 92.8     | mV    |
| QA_PFA1      | QA_PFA1_12  | 5745339.000 | 2129069.000 | 238.3    | mV    |
| QA_PFA1      | QA_PFA1_13  | 5745214.500 | 2129070.000 | 112.1    | mV    |
| QA_PFA1      | QA_PFA1_14  | 5745211.000 | 2129071.000 | 847.3    | mV    |
| QA_PFA1      | QA_PFA1_15  | 5745229.500 | 2129072.000 | 51.4     | mV    |
| QA_PFA1      | QA_PFA1_16  | 5745216.000 | 2129072.500 | 60.9     | mV    |
| QA_PFA1      | QA_PFA1_17  | 5745325.500 | 2129073.000 | 80.4     | mV    |
| QA_PFA1      | QA_PFA1_18  | 5745210.000 | 2129074.000 | 225.7    | mV    |
| QA_PFA1      | QA_PFA1_19  | 5745228.000 | 2129074.000 | 80.7     | mV    |
| QA_PFA1      | QA_PFA1_20  | 5745323.000 | 2129074.500 | 119.7    | mV    |
| QA_PFA1      | QA_PFA1_21  | 5745215.500 | 2129076.000 | 181.4    | mV    |
| QA_PFA1      | QA_PFA1_22  | 5745213.000 | 2129077.000 | 195.5    | mV    |
| QA_PFA1      | QA_PFA1_23  | 5745238.500 | 2129077.500 | 154.1    | mV    |
| QA_PFA1      | QA_PFA1_24  | 5745217.000 | 2129078.500 | 77.3     | mV    |
| QA_PFA1      | QA_PFA1_25  | 5745340.000 | 2129080.000 | 69.0     | mV    |
| QA_PFA1      | QA_PFA1_26  | 5745287.500 | 2129085.500 | 64.8     | mV    |
| QA_PFA1      | QA_PFA1_27  | 5745213.000 | 2129086.500 | 78.6     | mV    |
| QA_PFA1      | QA_PFA1_28  | 5745211.000 | 2129087.500 | 75.5     | mV    |
| QA_PFA1      | QA_PFA1_29  | 5745202.500 | 2129089.000 | 104.2    | mV    |
| QA_PFA1      | QA_PFA1_30  | 5745282.000 | 2129089.000 | 68.4     | mV    |
| QA_PFA1      | QA_PFA1_31  | 5745355.000 | 2129090.500 | 76.8     | mV    |
| QA_PFA1      | QA_PFA1_32  | 5745268.500 | 2129092.500 | 53.7     | mV    |
| QA_PFA1      | QA_PFA1_33  | 5745205.000 | 2129094.500 | 127.1    | mV    |

InDepth Corporation, 11835 Carmel Mountain Road, Suitie 1304-329, San Diego, CA 92128

# Table 2.

# DGM QA Target List FORA Roadway and Utility Corridor QA Report Former Fort Ord, Seaside MRS 1 through 4 Monterey County, California

| Darkor Flate |             | Facting     | Northing    | Target   |        |
|--------------|-------------|-------------|-------------|----------|--------|
|              |             |             |             | Response | Linita |
| Area         | Target Name |             |             | Value    | Units  |
| Designation  |             | Feet)       | Feet)       | (Sum)    |        |
| QA_PFA1      | QA_PFA1_34  | 5745277.500 | 2129095.000 | 73.2     | mV     |
| QA_PFA1      | QA_PFA1_35  | 5745226.500 | 2129097.000 | 126.9    | mV     |
| QA_PFA1      | QA_PFA1_36  | 5745306.500 | 2129097.500 | 97.0     | mV     |
| QA_PFA2      | QA_PFA2_01  | 5744525.500 | 2128825.500 | 56.0     | mV     |
| QA_PFA2      | QA_PFA2_02  | 5744597.000 | 2128838.000 | 90.9     | mV     |
| QA_PFA2      | QA_PFA2_03  | 5744645.000 | 2128855.500 | 101.9    | mV     |
| QA_PFA2      | QA_PFA2_04  | 5744568.500 | 2128862.500 | 51.3     | mV     |
| QA_PFA2      | QA_PFA2_05  | 5744576.500 | 2128870.000 | 77.4     | mV     |
| QA_PFA2      | QA_PFA2_06  | 5744501.000 | 2128899.000 | 559.0    | mV     |
| QA_PFA2      | QA_PFA2_07  | 5744601.000 | 2128899.000 | 1322.6   | mV     |
| QA_PFA2      | QA_PFA2_08  | 5744568.000 | 2128899.500 | 113.3    | mV     |
| QA_PFA3a     | QA_PFA3a_01 | 5745012.500 | 2127914.500 | 79.0     | mV     |
| QA_PFA3a     | QA_PFA3a_02 | 5745016.000 | 2127919.000 | 264.3    | mV     |
| QA_PFA3a     | QA_PFA3a_03 | 5745097.000 | 2127958.000 | 61.6     | mV     |
| QA_PFA3a     | QA_PFA3a_04 | 5745069.000 | 2127962.000 | 55.2     | mV     |
| QA_PFA3a     | QA_PFA3a_05 | 5745072.500 | 2127985.500 | 67.0     | mV     |
| QA_PFA3a     | QA_PFA3a_06 | 5745065.500 | 2127986.500 | 53.7     | mV     |
| QA_PFA3a     | QA_PFA3a_07 | 5745088.500 | 2127988.500 | 296.2    | mV     |
| QA_PFA3a     | QA_PFA3a_08 | 5745098.000 | 2127989.500 | 169.7    | mV     |
| QA_PFA3a     | QA_PFA3a_09 | 5745025.500 | 2128007.000 | 112.5    | mV     |
| QA_PFA3a     | QA_PFA3a_10 | 5745067.000 | 2128015.000 | 63.5     | mV     |
| QA_PFA3a     | QA_PFA3a_11 | 5745098.500 | 2128040.500 | 61.0     | mV     |
| QA_PFA3a     | QA_PFA3a_12 | 5745098.000 | 2128062.000 | 63.4     | mV     |
| QA_PFA3a     | QA_PFA3a_13 | 5745053.000 | 2128064.000 | 53.5     | mV     |
| QA_PFA3b     | QA_PFA3b_01 | 5745296.000 | 2128231.000 | 60.6     | mV     |
| QA_PFA4      | QA_PFA4_01  | 5746929.000 | 2127725.000 | 1735.1   | mV     |
| QA_PFA4      | QA_PFA4_02  | 5746973.000 | 2127741.000 | 104.8    | mV     |
| QA_PFA4      | QA_PFA4_03  | 5746980.000 | 2127744.000 | 63.4     | mV     |
| QA_PFA4      | QA_PFA4_04  | 5746976.000 | 2127745.500 | 76.1     | mV     |
| QA_PFA4      | QA_PFA4_05  | 5746982.500 | 2127749.000 | 56.4     | mV     |
| QA_PFA4      | QA_PFA4_06  | 5746977.500 | 2127751.500 | 107.1    | mV     |
| QA_PFA4      | QA_PFA4_07  | 5746970.000 | 2127768.500 | 71.4     | mV     |
| QA_PFA4      | QA_PFA4_08  | 5746973.500 | 2127786.000 | 53.0     | mV     |

InDepth Corporation, 11835 Carmel Mountain Road, Suitie 1304-329, San Diego, CA 92128

# Table 2.

# DGM QA Target List FORA Roadway and Utility Corridor QA Report Former Fort Ord, Seaside MRS 1 through 4 Monterey County, California

| Parker Flats<br>Area<br>Designation | Target Name | Easting<br>(US Survey<br>Feet) | Northing<br>(US Survey<br>Feet) | Target<br>Response<br>Value<br>(Sum) | Units |
|-------------------------------------|-------------|--------------------------------|---------------------------------|--------------------------------------|-------|
| QA_PFA4                             | QA_PFA4_09  | 5746987.000                    | 2127789.000                     | 117.8                                | mV    |
| QA_PFA4                             | QA_PFA4_10  | 5746912.000                    | 2127812.500                     | 57.4                                 | mV    |
| QA_PFA4                             | QA_PFA4_11  | 5746964.000                    | 2127813.000                     | 52.0                                 | mV    |
| QA_PFA4                             | QA_PFA4_12  | 5746969.000                    | 2127817.000                     | 54.7                                 | mV    |
| QA_PFA4                             | QA_PFA4_13  | 5746911.000                    | 2127817.500                     | 112.5                                | mV    |
| QA_PFA4                             | QA_PFA4_14  | 5746974.500                    | 2127820.500                     | 57.0                                 | mV    |
| QA_PFA4                             | QA_PFA4_15  | 5746968.000                    | 2127823.000                     | 65.6                                 | mV    |
| QA_PFA4                             | QA_PFA4_16  | 5746974.000                    | 2127823.500                     | 61.1                                 | mV    |

QA Intrusive Investigation Results

FORA Roadway and Utility Corridor QA Report

Former Fort Ord, Seaside MRS 1 through 4

| Project Name:    |  | FORA QA2 Resurvey                              | UXO Contractor            | LFR / Weston         | Equipment    | Serial Number |  |  |  |  |  |  |
|------------------|--|--|---------------------------|----------------------|--------------|---------------|--|--|--|--|--|--|
| Project Locatio  | n:   | Monterey County, CA                            | Geophysical Contractor    | r: Weston            | EM61         | Weston        |  |  |  |  |  |  |
| Coordinate Sys   | stem:  | NAD83 CS83 Zone 4 (US survey feet)             | Project Geophysicist:     | Matthew Gifford      | Allegro      | Weston        |  |  |  |  |  |  |
| Survey Area:     |  | Parker Flats Area 1-7 and Habitat Trails       | QC Geophysicist:          | John Williams        | Magnetometer | Schonstedt    |  |  |  |  |  |  |
| Field Team:      |  |  | Regulatory POC:           |                      | All Metals   | White XLT     |  |  |  |  |  |  |
| Date: April 14 8 | § 15, 2010   |  | QA Contractor:            | InDepth / ERRG       | Positioning  | Trimble RTK   |  |  |  |  |  |  |
| Team Leader S    | Signature:   |  | QA Geophysicist:          | Brian Hecker         |              | NA            |  |  |  |  |  |  |
| Project:         | FORA QA2 Resurvey  | Survey Area:                                   | Parker Flats Area 1-7 a   | nd Ha Field Team:    | 0 Date:      |               |  |  |  |  |  |  |
| NOTE 1 - Anor    | naly Type: U = UXO, F = Frag, I  | MD = Munitions Debris, S = Scrap, A = Small Ar | rms Ammunition, NC = No   | o Contact, O = Other |              |               |  |  |  |  |  |  |
| NOTE 2 - Targ    | et Azimuth: N = North, NW = No   | orthwest, W = West, SW = Southwest, S = South  | n, SE = Southeast, E = Ea | ast, NE = Northeast  |              |               |  |  |  |  |  |  |
| NOTE 3 - Targe   | DTE 3 - Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizontal |  |                           |                      |              |               |  |  |  |  |  |  |

| T           | arget Info             |          | Reacquisi | tion Survey      |                             |                             |                                |                              | Dig                         | y Results               |                       |
|-------------|------------------------|----------|-----------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-----------------------|
| Target Name | Instrument<br>Response | Units    | Channel   | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments              |
| QA_PFA1_01  | 51.9                   | Stack mV |           | 3                | Metal Rod                   |                             |                                |                              | 7                           |                         | 8 Inches Length       |
| QA_PFA1_02  | 53.7                   | Stack mV |           | 2                |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_03  | 93.0                   | Stack mV |           | 4                |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_04  | 51.5                   | Stack mV |           | 2.3              |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_05  | 164.5                  | Stack mV |           | 2.8              | Mine                        |                             |                                |                              | 24                          | FtOrd14Apr10_1          | M8 Practice Mine-Body |
| QA_PFA1_06  | 69.1                   | Stack mV |           | 3.2              |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_07  | 72.3                   | Stack mV |           | 3.1              |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_08  | 51.6                   | Stack mV |           | 3.2              | Nail/Barb Wire              | ,                           |                                |                              | 6                           |                         |                       |
| QA_PFA1_09  | 289.1                  | Stack mV |           | 3.4              | Nail                        |                             |                                |                              | 6                           |                         | 3 inches              |
| QA_PFA1_10  | 50.3                   | Stack mV |           | 2.1              | Nail                        |                             |                                |                              | 3                           |                         | 4 Inches Length       |
| QA_PFA1_11  | 92.8                   | Stack mV |           | 4.1              | Nail                        |                             |                                |                              | 4                           |                         | 3 Inches Length       |
| QA_PFA1_12  | 238.3                  | Stack mV |           | 3.4              | Nail                        |                             |                                |                              | 5                           |                         | 1 Inches Length       |
| QA_PFA1_13  | 112.1                  | Stack mV |           | 0.4              | Wire                        |                             |                                |                              | 3                           |                         | 10 Inches Length      |
| QA_PFA1_14  | 847.3                  | Stack mV |           | 1.2              | Wire                        |                             |                                |                              | 3                           |                         | 16 Inches Length      |
| QA_PFA1_15  | 51.4                   | Stack mV |           | 1.2              | Barb Wire                   |                             |                                |                              | 2                           |                         | 3 Inches Length       |
| QA_PFA1_16  | 60.9                   | Stack mV |           | 0.3              | Nail                        |                             |                                |                              | 1                           |                         | 4 Inches Length       |
| QA_PFA1_17  | 80.4                   | Stack mV |           | 4.1              | Nail                        |                             |                                |                              | 4                           |                         | 2 Inches Length       |
| QA_PFA1_18  | 225.7                  | Stack mV |           | 0.7              | Wire                        |                             |                                |                              | 3                           |                         |                       |
| QA_PFA1_19  | 80.7                   | Stack mV |           | 14               | Wire                        |                             |                                |                              | 2                           |                         |                       |
| QA_PFA1_20  | 119.7                  | Stack mV |           | 41               |                             |                             |                                |                              |                             |                         | No Find               |
| QA_PFA1_21  | 181.4                  | Stack mV |           | 0.1              | Barb Wire                   |                             |                                |                              | 5                           |                         | 10 Inches Length      |
| QA_PFA1_22  | 195.5                  | Stack mV |           | 3.2              | Barb Wire                   |                             |                                |                              | 2                           |                         | 12 Inches Length      |
| QA_PFA1_23  | 154.1                  | Stack mV |           | 0.2              | Barb Wire                   |                             |                                |                              | 3                           |                         |                       |

QA Intrusive Investigation Results

FORA Roadway and Utility Corridor QA Report

Former Fort Ord, Seaside MRS 1 through 4

| Project:            | pject: FORA QA2 Resurvey Survey Area: Parker Flats Area 1-7 and Ha Field Team: 0 Date: |                |                |                  |                             |                             |                                |                                 |                             |                         |                  |  |  |
|---------------------|--|----------------|----------------|------------------|-----------------------------|-----------------------------|--------------------------------|---------------------------------|-----------------------------|-------------------------|------------------|--|--|
| NOTE 1 - Anomaly 7  | Гуре: U = UXO, F   | = Frag, MD =   | Munitions Del  | bris, S = Scrap, | A = Small Arm               | ns Ammunition               | , NC = No Con                  | tact, O = Other                 |                             |                         |                  |  |  |
| NOTE 2 - Target Azi | muth: N = North,   | NW = Northwe   | est, W = West, | SW = Southwe     | est, S = South,             | SE = Southea                | st, E = East, N                | E = Northeast                   |                             |                         |                  |  |  |
|                     | arget Info   | lical Nose up, |                | tion Survey      |                             | use up, ind =               | Inclined Nose                  |                                 | al<br>Dic                   | Results                 |                  |  |  |
| Target Name         | Instrument<br>Response   | Units          | Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of<br>nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments         |  |  |
| QA_PFA1_24          | 77.3   | Stack mV       |                | 7.9              | Barb Wire                   |                             |                                |                                 | 4                           |                         | 6 Inches Length  |  |  |
| QA_PFA1_25          | 69.0   | Stack mV       |                | 0.1              | Barb Wire                   |                             |                                |                                 | 2                           |                         | 11 Inches Length |  |  |
| QA_PFA1_26          | 64.8   | Stack mV       |                | 6.2              | Barb Wire                   |                             |                                |                                 | 2                           |                         |                  |  |  |
| QA_PFA1_27          | 78.6   | Stack mV       |                | 1.2              | Barb Wire                   |                             |                                |                                 | 3                           |                         | 3 Inches Length  |  |  |
| QA_PFA1_28          | 75.5   | Stack mV       |                | 3.4              | Barb Wire                   |                             |                                |                                 | 2                           |                         | 2 Inches Length  |  |  |
| QA_PFA1_29          | 104.2  | Stack mV       |                | 8.7              | Barb Wire                   |                             |                                |                                 | 6                           |                         | 5 Inches Length  |  |  |
| QA_PFA1_30          | 68.4   | Stack mV       |                | 5.2              | Scrap                       |                             |                                |                                 | 3                           |                         | 4 Inches Length  |  |  |
| QA_PFA1_31          | 76.8   | Stack mV       |                | 3.2              | Scrap                       |                             |                                |                                 | 2                           |                         | 1 Inches Length  |  |  |
| QA_PFA1_32          | 53.7   | Stack mV       |                | 1.5              |                             |                             |                                |                                 |                             |                         | No Find          |  |  |
| QA_PFA1_33          | 127.1  | Stack mV       |                | 2.7              | Barb Wire                   |                             |                                |                                 | 6                           |                         | 8 Inches Length  |  |  |
| QA_PFA1_34          | 73.2   | Stack mV       |                | 2.8              | Nail                        |                             |                                |                                 | 8                           |                         | 4 Inches Length  |  |  |
| QA_PFA1_35          | 126.9  | Stack mV       |                | 0.2              | Barb Wire                   |                             |                                |                                 | 2                           |                         | 4 Inches Length  |  |  |
| QA_PFA1_36          | 97.0   | Stack mV       |                | 3.1              | Nail                        |                             |                                |                                 | 2                           |                         | 3 Inches Length  |  |  |
| QA_PFA2_01          | 56.0   | Stack mV       |                | 0.7              | Barb Wire                   |                             |                                |                                 | 1                           |                         | 2 Inches Length  |  |  |
| QA_PFA2_02          | 90.9   | Stack mV       |                | 2.1              | Barb Wire                   |                             |                                |                                 | 3                           |                         | 1 Inches Length  |  |  |
| QA_PFA2_03          | 101.9  | Stack mV       |                | 2.4              | Nail                        |                             |                                |                                 | 1                           |                         | 2 Inches Length  |  |  |
| QA_PFA2_04          | 51.3   | Stack mV       |                | 0.4              | Barb Wire                   |                             |                                |                                 | 6                           |                         | 12 Inches Length |  |  |
| QA_PFA2_05          | 77.4   | Stack mV       |                | 34               | Barb Wire                   |                             |                                |                                 | 2                           |                         | 2 Inches Length  |  |  |
| QA_PFA2_06          | 559.0  | Stack mV       |                |                  | Metal Spike                 |                             |                                |                                 | 0                           |                         | Corner Stake     |  |  |
| QA_PFA2_07          | 1322.6   | Stack mV       |                |                  | Metal Spike                 |                             |                                |                                 | 0                           |                         | Corner Stake     |  |  |
| QA_PFA2_08          | 113.3  | Stack mV       |                | 5                | Barb Wire                   |                             |                                |                                 | 6                           |                         | 2 Inches Length  |  |  |
| QA_PFA3a_01         | 79.0   | Stack mV       |                | 1                | Nail                        |                             |                                |                                 | 5                           |                         | 1 Inches Length  |  |  |
| QA_PFA3a_02         | 264.3  | Stack mV       |                | 14               | Trash Pit                   |                             |                                |                                 | 15                          |                         |                  |  |  |
| QA_PFA3a_03         | 61.6   | Stack mV       |                | 1.3              | Nail                        |                             |                                |                                 | 3                           |                         | 4 Inches Length  |  |  |
| QA_PFA3a_04         | 55.2   | Stack mV       |                | 0.4              | Barb Wire                   |                             |                                |                                 | 4                           |                         | 2 Inches Length  |  |  |
| QA_PFA3a_05         | 67.0   | Stack mV       |                | 1.7              | Nail                        |                             |                                |                                 | 2                           |                         | 3 Inches Length  |  |  |
| QA_PFA3a_06         | 53.7   | Stack mV       |                | 2.6              | Nail                        |                             |                                |                                 | 2                           |                         | 2 Inches Length  |  |  |

QA Intrusive Investigation Results

FORA Roadway and Utility Corridor QA Report

Former Fort Ord, Seaside MRS 1 through 4

| Project:            | pject: FORA QA2 Resurvey Survey Area: Parker Flats Area 1-7 and Ha Field Team: 0 Date: |                |                |                  |                             |                             |                                |                              |                             |                         |                 |  |  |
|---------------------|--|----------------|----------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-----------------|--|--|
| NOTE 1 - Anomaly T  | Гуре: U = UXO, F   | = Frag, MD =   | Munitions Del  | bris, S = Scrap, | A = Small Arn               | ns Ammunition               | , NC = No Con                  | tact, O = Other              |                             |                         |                 |  |  |
| NOTE 2 - Target Azi | imuth: N = North,<br>ination: NLL = Vor  | NW = Northwe   | est, W = West, | SW = Southwe     | est, S = South,             | SE = Southea                | st, E = East, N                | E = Northeast                |                             |                         |                 |  |  |
|                     | arget Info   | lical Nuse Up, | Reacquisi      | tion Survey      |                             | iuse up, ind =              | Inclined Nose                  |                              | aı<br>Dic                   | Results                 |                 |  |  |
| Target Name         | Instrument<br>Response   | Units          | Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments        |  |  |
| QA_PFA3a_07         | 296.2  | Stack mV       |                |                  | Grounding<br>Rod            |                             |                                |                              | 0                           |                         |                 |  |  |
| QA_PFA3a_08         | 169.7  | Stack mV       |                | 0.4              | Nail                        |                             |                                |                              | 4                           |                         | 3 Inches Length |  |  |
| QA_PFA3a_09         | 112.5  | Stack mV       |                | 1.4              | Nail                        |                             |                                |                              | 4                           |                         | 3 Inches Length |  |  |
| QA_PFA3a_10         | 63.5   | Stack mV       |                | 0.2              | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length |  |  |
| QA_PFA3a_11         | 61.0   | Stack mV       |                | 1.8              | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length |  |  |
| QA_PFA3a_12         | 63.4   | Stack mV       |                | 0.6              | Nail                        |                             |                                |                              | 2                           |                         | 2 Inches Length |  |  |
| QA_PFA3a_13         | 53.5   | Stack mV       |                | 0.3              | Nail                        |                             |                                |                              | 1                           |                         | 4 Inches Length |  |  |
| QA_PFA3b_01         | 60.6   | Stack mV       |                | 1.2              | Barb Wire                   |                             |                                |                              | 2                           |                         | 6 Inches Length |  |  |
| QA_PFA4_01          | 1735.1   | Stack mV       |                | 1.2              |                             |                             |                                |                              |                             |                         | No Find         |  |  |
| QA_PFA4_02          | 104.8  | Stack mV       |                | 3.1              | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length |  |  |
| QA_PFA4_03          | 63.4   | Stack mV       |                | 1.1              | Nail                        |                             |                                |                              | 4                           |                         | 2 Inches Length |  |  |
| QA_PFA4_04          | 76.1   | Stack mV       |                | 2.4              | Nail                        |                             |                                |                              | 3                           |                         | 2 Inches Length |  |  |
| QA_PFA4_05          | 56.4   | Stack mV       |                | 4.1              | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length |  |  |
| QA_PFA4_06          | 107.1  | Stack mV       |                | 1.2              | Barb Wire                   |                             |                                |                              | 1                           |                         |                 |  |  |
| QA_PFA4_07          | 71.4   | Stack mV       |                | 2.1              | Barb Wire                   |                             |                                |                              | 1                           |                         |                 |  |  |
| QA_PFA4_08          | 53.0   | Stack mV       |                | 4.3              |                             |                             |                                |                              |                             |                         | No Find         |  |  |
| QA_PFA4_09          | 117.8  | Stack mV       |                | 1.2              | Brass                       |                             |                                |                              | 1                           |                         |                 |  |  |
| QA_PFA4_10          | 57.4   | Stack mV       |                | 4.5              | Brass                       |                             |                                |                              | 2                           |                         |                 |  |  |
| QA_PFA4_11          | 52.0   | Stack mV       |                | 0.4              | Nail                        |                             |                                |                              | 1                           |                         | 3 Inches Length |  |  |
| QA_PFA4_12          | 54.7   | Stack mV       |                | 5.7              | Barb Wire                   |                             |                                |                              |                             |                         |                 |  |  |
| QA_PFA4_13          | 112.5  | Stack mV       |                | 2                | Nail                        |                             |                                |                              | 2                           |                         |                 |  |  |
| QA_PFA4_14          | 57.0   | Stack mV       |                | 4.1              | Nail                        |                             |                                |                              | 3                           |                         | 2 Inches Length |  |  |
| QA_PFA4_15          | 65.6   | Stack mV       |                | 3.2              | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length |  |  |
| QA_PFA4_16          | 61.1   | Stack mV       |                | 2.3              | Nail                        |                             |                                |                              | 2                           |                         | 2 Inches Length |  |  |
| QA_PFA4_17          | 79.8   | Stack mV       |                | 2.3              | Banding                     |                             |                                |                              | 2                           |                         | 4 Inches Length |  |  |
| QA_PFA4_18          | 130.7  | Stack mV       |                | 4.2              | Nail                        |                             |                                |                              | 1                           |                         | 3 Inches Length |  |  |
| QA_PFA4_19          | 85.2   | Stack mV       |                | 6.2              | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length |  |  |

QA Intrusive Investigation Results

FORA Roadway and Utility Corridor QA Report

Former Fort Ord, Seaside MRS 1 through 4

| Project:             | FORA QA2 Res           | urvey          |                | Survey Area:     |                             | Parker Flats A              | rea 1-7 and H                  | Field Team:                  | 0                           | Date:                   |   |
|----------------------|------------------------|----------------|----------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|---|
| NOTE 1 - Anomaly T   | Гуре: U = UXO, F       | = Frag, MD =   | Munitions Del  | bris, S = Scrap, | A = Small Arm               | ns Ammunition               | , NC = No Cor                  | itact, O = Other             |                             |                         |   |
| NOTE 2 - Target Azi  | muth: N = North,       | NW = Northwe   | est, W = West, | SW = Southwe     | est, S = South,             | SE = Southeas               | st, E = East, N                | E = Northeast                |                             |                         |   |
| NOTE 3 - Target Incl | arget Info             | lical Nose Up, | ND = Venical   | Nose Down, IN    | U = Inclined N              | ose up, IND =               | Inclined Nose                  | Down, $H = Honzonia$         | il<br>Dic                   | a Doculte               |   |
| Target Name          | Instrument<br>Response | Units          | Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments                                    |
| QA_PFA4_20           | 65.2                   | Stack mV       |                | 4.2              | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length                             |
| QA_PFA4_21           | 72.3                   | Stack mV       |                | 6.1              | Nail                        |                             |                                |                              | 1                           |                         | 2.5 Inches Length                           |
| QA_PFA4_22           | 61.0                   | Stack mV       |                | 1.2              | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length                             |
| QA_PFA5_01           | 58.8                   | Stack mV       |                | 1                | Barb Wire                   |                             |                                |                              | 5                           |                         | 2 Inches Length                             |
| QA_PFA5_02           | 66.1                   | Stack mV       |                | 3                | Barb Wire                   |                             |                                |                              | 5                           |                         | 2 Inches Length                             |
| QA_PFA67_01          | 61.2                   | Stack mV       |                | 3                |                             |                             |                                |                              | 3                           |                         | No Find                                     |
| QA_PFA67_02          | 99.4                   | Stack mV       |                | -1               | Nail                        |                             |                                |                              | 1                           |                         | 2 Inches Length                             |
| QA_PFHBT_01          | 83.7                   | Stack mV       |                | 1                | Flare                       |                             |                                |                              | 10                          |                         | 5 Inches Length                             |
| QA_PFHBT_02          | 189.2                  | Stack mV       |                | 4                |                             |                             |                                |                              |                             |                         | No Find                                     |
| QA_PFHBT_03          | 115.8                  | Stack mV       |                | 40               |                             |                             |                                |                              |                             |                         | No Find                                     |
| QA_PFHBT_04          | 121.4                  | Stack mV       |                | 5                | Barb Wire                   |                             |                                |                              | 5                           |                         |   |
| QA_PFHBT_05          | 51.7                   | Stack mV       |                | 3                | Barb Wire                   |                             |                                |                              | 5                           |                         |   |
| QA_PFHBT_06          | 81.1                   | Stack mV       |                | 2                | Barb Wire                   |                             |                                |                              | 5                           |                         | 6 Inches Length                             |
| QA_PFHBT_07          | 227.8                  | Stack mV       |                | 4                |                             |                             |                                |                              | 3                           |                         | 7 Inches Length                             |
| QA_PFHBT_08          | 54.4                   | Stack mV       |                | 5                | Scrap Metal                 |                             |                                |                              | 18                          |                         |   |
| QA_PFHRTa_01         | 63.3                   | Stack mV       |                | 7                | Scrap Metal                 |                             |                                |                              | 2                           |                         | 1 Inches Length                             |
| QA_PFHRTa_02         | 55.4                   | Stack mV       |                | 12               | Nail                        |                             |                                |                              | 3                           |                         | 4 Inches Length                             |
| QA_PFHRTa_03         | 68.8                   | Stack mV       |                | 8                | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length                             |
| QA_PFHRTa_04         | 120.1                  | Stack mV       |                | 6                | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length                             |
| QA_PFHRTa_05         | 57.2                   | Stack mV       |                | 13               |                             |                             |                                |                              |                             |                         | No Find                                     |
| QA_PFHRTa_06         | 54.1                   | Stack mV       |                | 3                | Nail                        |                             |                                |                              | 5                           |                         | 4 Inches Length                             |
| QA_PFHRTa_07         | 113.0                  | Stack mV       |                | 4                | Nail                        |                             |                                |                              | 4                           |                         | 4 Inches Length                             |
| QA_PFHRTb_01         | 56.8                   | Stack mV       |                | 4                | Scrap Metal                 |                             |                                |                              | 1                           |                         |   |
| QA_PFHRTb_02         | 61.2                   | Stack mV       |                | 8                | Scrap Metal                 |                             |                                |                              | 2                           |                         | 1 Inches Length                             |
| QA_PFHRTb_03         | 345.4                  | Stack mV       |                |                  |                             |                             |                                |                              |                             |                         | Satellite -15 ft off road inaccessable area |
| QA_PFHRTb_04         | 122.8                  | Stack mV       |                | 5                | Link                        |                             |                                |                              | 2                           |                         |   |
| QA_PFHRTb_05         | 232.6                  | Stack mV       |                | 5                |                             |                             |                                |                              |                             |                         | No Find                                     |

QA Intrusive Investigation Results

FORA Roadway and Utility Corridor QA Report

Former Fort Ord, Seaside MRS 1 through 4

| Project:             | oject: FORA QA2 Resurvey Survey Area: Parker Flats Area 1-7 and Hz Field Team: 0 Date: |                |               |                  |                             |                             |                                |                              |                             |                         |                 |  |  |
|----------------------|--|----------------|---------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-----------------|--|--|
| NOTE 1 - Anomaly 1   | Гуре: U = UXO, F   | = Frag, MD =   | Munitions De  | bris, S = Scrap, | A = Small Arm               | ns Ammunition               | i, NC = No Con                 | tact, O = Other              |                             |                         |                 |  |  |
| NOTE 2 - Target Azi  | muth: N = North,   | NW = Northw    | est, W = West | SW = Southwe     | est, S = South,             | SE = Southea                | st, E = East, N                | E = Northeast                |                             |                         |                 |  |  |
| NOTE 3 - Target Incl | ination: NU = Ver  | tical Nose Up, | ND = Vertical | Nose Down, IN    | IU = Inclined N             | ose Up, IND =               | Inclined Nose                  | Down, H = Horizonta          | al                          |                         |                 |  |  |
| т                    | Target Info     Reacquisition Survey     Dig Results                                   |                |               |                  |                             |                             |                                |                              |                             |                         |                 |  |  |
| Target Name          | Instrument<br>Response   | Units          | Channel       | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments        |  |  |
| QA_PFHRTb_06         | 52.2   | Stack mV       |               | 4                | Nail                        |                             |                                |                              | 2                           |                         | 3 Inches Length |  |  |
| QA_PFHRTb_07         | 216.0  | Stack mV       |               | 3                | Wire/Tent St                | ake                         |                                |                              | 2                           |                         |                 |  |  |
| QA_PFHRTb_08         | 1228.5   | Stack mV       |               | 4                | Scrap Metal                 |                             |                                |                              |                             |                         | 6 Inches Length |  |  |
| QA_PFHRTb_09         | 54.3   | Stack mV       |               | 5                | Nail                        |                             |                                |                              | 5                           |                         | 2 Inches Length |  |  |
| QA_PFHRTb_10         | 53.2   | Stack mV       |               | 5                | Flare                       |                             |                                |                              | 7                           | ,                       | 5 Inches Length |  |  |
| QA_PFHRTb_11         | 59.3   | Stack mV       |               | 7                |                             |                             |                                |                              |                             |                         | No Find         |  |  |
| QA_PFHRTb_12         | 75.7   | Stack mV       |               | 2                | Scrap Metal                 |                             |                                |                              | 3                           |                         | 4 Inches Length |  |  |
| QA_PFHRTb_13         | 82.2   | Stack mV       |               | 8                | Nail                        |                             |                                |                              | 1                           |                         | 4 Inches Length |  |  |
| QA_PFHRTb_14         | 72.8   | Stack mV       |               | 1                | Clip                        |                             |                                |                              | 2                           |                         |                 |  |  |
| QA_PFHWT_01          | 231.9  | Stack mV       |               | 9                | Nail                        |                             |                                |                              | 1                           |                         | 7 Inches Length |  |  |
| QA_PFHWT_02          | 201.8  | Stack mV       |               | 11               | Scrap Metal                 |                             |                                |                              | 2                           |                         | 5 Inches Length |  |  |

















# Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 03-20-09   |  |  |
|--|--|--|
| Work Task (Milestone/Activity):  | Parker Flats Surface Clearance and Regulatory Meeting  |  |
| Survey Period:   | 03-17-09 & 3-19-09   |  |
| Method of Surveillance (Visual, D  | Occument Review, Inspection, etc): Inspection (Surface & Schonstedt)   |  |
| Observations Concerning the LFR Team's Performance Deservations/Inspections performed by Jesse. J. Sipult, ERRG MEC Quality Assurance Professional. Observations: The purpose of this site visit/audit was for the investigation the Parker Flats area. I conducted a 100% Schonstedt aided surface inspection of the following grids; C3H6C1, C3H6F2, C3G5I8, C3H6F7, C3H6E5, C3H5I4, C3H4I6, C3H5D7, and C3H4H7. These grids were randomly selected by the MEC QA Professional and are sporadically located to obtain the best possible information/representation for this area. Additionally, I attended a regulatory meeting on March 19, 2009. |  |  |
| Corrective Action Required:  | Yes No   |  |
| Evaluation of LFR Team's Perfor  | mance During Surveillance Activities:  |  |
| Evaluation Discussion:<br>No MEC/MPPEH or MD items were discovered du<br>I have noticed during my QA audits that the majori<br>being detected. The exception to this are the grids of<br>passing by vehicles over the years. There are some<br>the norm.   | uring the audit/inspection and no items the size of a 37mm was located. All areas passed the QA audit. Additionally,<br>ity of these grids that are in the Parker Flats area are fairly quiet, meaning there are very little subsurface anomalies<br>closer to the roads and trails and this may be due to a lot of trash and various debris that people have thrown out of<br>e grids that do contain quite a bit of subsurface anomalies, Weston QC has made notes of these areas, but it is not |  |



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 05-29-09

Work Task (Milestone/Activity): Parker Flats Surface Clearance

Survey Period: 05-28-09

Method of Surveillance (Visual, Document Review, Inspection, etc): Inspection (Surface & Schonstedt)

Observations Concerning the LFR Team's Performance Observations/Inspections performed by Jesse. J. Sipult, ERRG MEC Quality Assurance Professional.

Observations:

The purpose of this site visit/audit was for the investigation the Parker Flats area. I conducted a 100% Schonstedt aided surface inspection of the following grids; C3F511, C3G4A9, C3G4C7, C3G4D9, C3G4E4, C3G4F7, C3G4F9, C3G4G4, C3G4H7, C3G4H9, C3G4IC, C3G4J7, C3G4J9, C3G5B2, C3G5E2, C3G5G3, and C3G5I3. These grids were randomly selected by the MEC QA Professional and are sporadically located to obtain the best possible information/representation for this area.

Additionally, this audit is confirmation that the LFR/Weston team successfully located the five (5) ERRG QA seeds that were buried on May 01, 2009.

Corrective Action Required:

🛛 No

Evaluation of LFR Team's Performance During Surveillance Activities:

Yes

Evaluation Discussion:

No MEC/MPPEH or MD items were discovered during the audit/inspection and no items the size of a 37mm was located. All areas passed the QA audit.

1, Atus



# Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 06-30-09   |   |  |
|--|---|--|
| Work Task (Milestone/Activity): Parker Flats Surface Clearance   |   |  |
| Survey Period:   | 06-29-09  |  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Inspection (Surface & Schonstedt)   |   |  |
| Observations Concerning the LFR Team's Performance<br>Observations/Inspections performed by Jesse. J. Sipult, ERRG MEC Quality Assurance Professional.                     |   |  |
| Observations:  |   |  |
| The purpose of this site visit/audit was for the inv   | restigation the Parker Flats area. I conducted a 100% Schonstedt aided surface inspection of the following grids; |  |
| C3G1E0, C3G1E3, C3G1E6, C3G1G4, C3G1G9, C3G1H6, C3G2B5, C3G2C7, C3G2D3, C3G2D5, C3G2D9, C3G2E7, C3G2F2, C3G2G5, and C3G2G9. These  |   |  |
| grids were randomly selected by the MEC QA Pr  | ofessional and are sporadically located to obtain the best possible information/representation for this area.     |  |
|  |   |  |
| Corrective Action Required:  | Yes No  |  |
| Evaluation of LFR Team's Performance During Surveillance Activities:   |   |  |
| Evaluation Discussion:<br>No MEC/MPPEH or MD items were discovered during the audit/inspection and no items the size of a 37mm was located. All areas passed the QA audit. |   |  |
| f. Atro  |   |  |


| Date: 7-29-09   |
|---|
| Work Task (Milestone/Activity): Field Variance for Parker Flats   |
| Survey Period: 07-28-09   |
| Method of Surveillance (Visual, Document Review, Inspection, etc): etc. Discussion  |
| Observations Concerning the LFR Team's Performance  |
| Observations:   |
| The purpose of this site visit/audit was to discuss the Field Variance for the work being conducted at Parker Flats. I spoke with Weston's SUXOS and OC so I would      |
| have a firm understanding of the process and to ensure they understood the process. Additionally, I spoke with Stan Cook to express that I was satisfied with the Field |
| Variance and I feel that it will work well.   |
|   |
| Corrective Action Required: Yes No  |
| Evaluation of LFR Team's Performance During Surveillance Activities:  |
| NA Atom   |



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 8-11-09

Work Task (Milestone/Activity): Field Variance for Parker Flats observation Survey Period: 8-11-09 Method of Surveillance (Visual, Document Review, Inspection, etc): Visual and Inspection Observations Concerning the LFR Team's Performance Observations/Inspections performed by Jesse. J. Sipult, ERRG MEC Quality Assurance Professional. Observations: The purpose of this site visit/audit was to observe the field UXO Teams conducting the investigation/clearance of the heavily contaminated polygons in the Parker Flats Area. I observed the UXO Teams conducting anomaly investigation prior to excavation in grid C260D6, this process was in accordance with the current work plan. I observed the UXO Team conducting the sifting portion of the polygon clearance in Polygon 1-this process was in accordance with the Field Variance and was an effective approach with very little metal debris and NO MEC being located in this polygon. Additionally, I observed the UXO Team conducting the polygon excavation in Polygon 16, this too was effective and in accordance with the Field Variance. I conducted EM-61 quality assurance check in Polygons 9, 24, 10 and 01-NO MEC and no anomaly readings within the threshold of the EM-61 was discovered. Corrective Action Required: Yes No Evaluation of LFR Team's Performance During Surveillance Activities: Overall this process is an effective process that will allow the LFR/Weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies from these polygon areas. I was pleased with the overall process and recommend the Team continue with this process. V. Atus



| Date: 9-11-09   |
|---|
| Work Task (Milestone/Activity): Parker Flats  |
| Survey Period: 9-01-09  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Visual   |
| Observations Concerning the LFR Team's Performance  |
| Observations/Inspections performed by Jesse. J. Sipult, ERRO MEC Quality Assurance Professional.  |
| Undervations:   |
| The purpose of this site visit/audit was to observe the field UKO Teams conducting the investigation/clearance of the neavity containinated polygons in the Parker  |
| Plats Area. I observed the UAO Teams conducting anomaly investigations in Area 5 and sitting operations in Area 1.  |
| Corrective Action Required: Yes No  |
| Evaluation of LFR Team's Performance During Surveillance Activities:  |
| Overall this process is an effective process that will allow the LFR/Weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies |
| from these polygon areas.   |
| f. Atro   |



| Date: 9-16-09  |   |
|--|---|
| Work Task (Milestone/Activity):                                    | Parker Flats  |
| Survey Period:   | 9-08-09   |
| Method of Surveillance (Visual, I                                  | Document Review, Inspection, etc): Visual   |
| Observations Concerning the LF                                     | FR Team's Performance   |
| Observations/Inspections performed by Jesse. J. S<br>Observations: | sipult, ERRG MEC Quality Assurance Professional.  |
| The purpose of this site visit/audit was to observe                | the field UXO Teams conducting the investigation/clearance of the heavily contaminated polygons in the Parker   |
| Flats Area. I observed the UXO Teams conductin                     | g polygon excavation and sifting in DGM Area 3 and anomaly investigation in DGM Area 4.                         |
| Corrective Action Required:  | Yes No  |
| Evaluation of LFR Team's Perfo                                     | ormance During Surveillance Activities:   |
| from these polygon areas.  | in allow the LFK/weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies |
| f. Atus  |   |



| Date: 9-29-09   |
|---|
| Work Task (Milestone/Activity): Parker Flats  |
| Survey Period: 9-29-09  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Visual/Schonstedt  |
| Observations Concerning the LFR Team's Performance  |
| Observations:   |
| I conducted a 10% Schonstedt audit/inspection of the following grids: C3H2B9, C3H3B2, C3H3A4, C3H3C7, C3H3D0, and C3H4E4.   |
|   |
| Corrective Action Required: Yes No  |
| Evaluation of LFR Team's Performance During Surveillance Activities:<br>There were no MEC or MD items found in these areas. |
| f. Atro   |



| Date: 11-12-09   |  |  |  |  |
|--|--|--|--|--|
| Work Task (Milestone/Activity): Parker Flats MRA Phase II  |  |  |  |  |
| Survey Period:   | 11-10-09 & 11-11-09  |  |  |  |
| Method of Surveillance (Visual, I  | Document Review, Inspection, etc): Visual and Inspection   |  |  |  |
| Observations Concerning the LF   | R Team's Performance   |  |  |  |
| Observations:  | o, EKKO MEC Quarty Assurance i foressional.  |  |  |  |
| The purpose of this site visit/audit was for the inv   | estigation Parker Flats area MEC OA Professional conducted a 100% Schonstedt aided surface inspection of the |  |  |  |
| following gride:   |  |  |  |  |
| C3G4A7 C3G4A5 C3G4A3 C3G4A1 C3E215 C3E213 C3E211 C3G1A1 C3G1A3 C3E115 C2G0C9 C2G0B6 C2E016 C2E018 C3E111 C3E113 C3G1B5                               |  |  |  |  |
| C3G1B7 C3G1A9 C3E1I9 C3E1I6 and C3E1H4 These grids were randomly selected by the MEC OA Professional and are sporadically located to obtain the best |  |  |  |  |
| possible information/representation for this area  |  |  |  |  |
| F  |  |  |  |  |
| Corrective Action Required:  | Yes No   |  |  |  |
| Evaluation of LFR Team's Perfo   | rmance During Surveillance Activities:   |  |  |  |
| Evaluation Discussion:   |  |  |  |  |
| Not Applicable   |  |  |  |  |
|  |  |  |  |  |

Not Applicable



| Date: 11-25-09  |  |  |  |
|---|--|--|--|
| Work Task (Milestone/Activity): Parker Flats MRA Phase II   |  |  |  |
| Survey Period: 11-24-09   |  |  |  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Visual and Inspection  |  |  |  |
| Observations Concerning the LFR Team's Performance  |  |  |  |
| Observations/Inspections performed by Luis Fierro, EKKG MEC Quality Assurance Professional.   |  |  |  |
|   |  |  |  |
| The purpose of this site visit/audit was for the investigation Parker Flats area. MEC QA Professional conducted a 100% Schonstedt aided surface inspection of the |  |  |  |
| following grids;  |  |  |  |
| C3H4F3, C3H4E2, C3H3D0, C3H3C8, C3H3B5, C3H3B3, and C3H2A0. These grids were randomly selected by the MEC QA Professional and are sporadically                    |  |  |  |
| located to obtain the best possible information/representation for this area.   |  |  |  |
|   |  |  |  |
| Corrective Action Required: Yes No  |  |  |  |
| Evaluation of LFR Team's Performance During Surveillance Activities:  |  |  |  |
| Evaluation Discussion:  |  |  |  |
| Not Applicable  |  |  |  |

Not Applicable



| Date: 12-08-09   |  |  |  |
|--|--|--|--|
| Work Task (Milestone/Activity): Parker Flats MRA Phase II  |  |  |  |
| Survey Period: 12-07-09  |  |  |  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Visual and Inspection   |  |  |  |
| Observations Concerning the LFR Team's Performance   |  |  |  |
| Observations:  |  |  |  |
| Observations. $ $  |  |  |  |
| following grids:   |  |  |  |
| C2G0I3, C2G0I6, C2G0I9, C3G111, C2G0G5, C2G0F3, C2G0D4and G2G0B4. These grids were randomly selected by the MEC OA Professional and are                                |  |  |  |
| sporadically located to obtain the best possible information/representation for this area. Advised that additional grids for OA would not be available until February. |  |  |  |
|  |  |  |  |
| Corrective Action Required: Yes No   |  |  |  |
| Evaluation of LFR Team's Performance During Surveillance Activities:   |  |  |  |
| Evaluation Discussion:   |  |  |  |
| Not Applicable   |  |  |  |

Not Applicable



## MEC QA DAILY REPORT

Date: 10 March, 2010

Weather Conditions: Cool Temperature: Low: \_\_\_\_\_High:\_\_\_\_\_

- 1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Two Weston Teams in the field at Parker Flats MRA Phase 11

**Demo Operations:** *N*/*A* 

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - Observed the two Weston Teams conducting anomaly investigations at Parker Flats MRA Phase 11. One team found 7, 37MM projectiles TPT, M 51 series.
  - Also attended a meeting with Weston Personnel.
- 5. Work Day's Highlights:

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel:



### **EQUIPMENT STATUS**

| DISCRIPTION    | QTY<br>ON | QTY IN<br>USE | QTY DOWN<br>FOR | QTY ON<br>STANDBY |
|----------------|-----------|---------------|-----------------|-------------------|
|                | HAND      |               | REPAIRS         |                   |
| a. Schonstedt  | 1         | 1             |                 |                   |
| b. Whites      |           |               |                 |                   |
| c. Site Trucks | 1         | 1             |                 |                   |
| d. Camera      |           |               |                 |                   |
|                |           |               |                 |                   |
|                |           |               |                 |                   |
|                |           |               |                 |                   |
|                |           |               |                 |                   |
|                |           |               |                 |                   |

Juis E. Fierro

ERRG QA Specialist



## MEC QA DAILY REPORT

Date: 09 April, 2010

Weather Conditions: Cool Temperature: Low: 51 High: 60

- 1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Parker Flats MRA Phase 11 Two dig teams conducting intrusive operations
  - Back hoe operations.

**Demo Operations:** *N*/*A* 

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3.** CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - Luis Observed Weston teams, 1 Back Hoe Team, 1 Surface Sweep Team, 2 Sifting Teams.
  - Item recovered: numerous grenade bodies, grenades fuzes and clipped small arms ammunition.
- 5. Work Day's Highlights:

<u>\* Upcoming QA Work:</u> QA targets have been selected and will be investigated by ERRG and Weston personnel, investigations results will be used for the completion of the QA GEO Report.

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel: N/A



### **EQUIPMENT STATUS**

| DISCRIPTION    | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|----------------|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt  | 1                 | 1             |                            |                   |
| b. Whites      | 1                 | 1             |                            |                   |
| c. Site Trucks | 1                 | 1             |                            |                   |
| d. Camera      |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |

fuis E. Fierro

ERRG QA Specialist

Francises M. Etc.

ERRG MEC Operations Manager

## QA Seed Recovery Log

| Work Area                       | Grid No.      | Date Recovered               | Recovered By     | Notes        |
|---------------------------------|---------------|------------------------------|------------------|--------------|
| E19a.2 - Habitat Reserve        | C3H3A5_E19a.2 | 8/17/2009                    | Matthew Lauchner | seed # 6     |
| E19a.3 - Horse Park             | C2G0I3        | 7/27/2009                    | Matthew Lauchner | ERRG Seed 10 |
| E19a.3 - Horse Park             | C3G3A7        | 9/8/2009                     | Tony Clark       |              |
| E19a.3 - Horse Park             | C3H3A2        | 9/9/2009                     | Matthew Lauchner | errg seed    |
| E19a.3 - Horse Park             | C3H3C3        | 3 9/14/2009 Matthew Lauchner |                  |              |
| E19a.3 - Horse Park             | C3H3D7        | 7/15/2009                    | Tony Clark       |              |
| E19a.4 - Habitat Reserve County | C3G5F7        | 7/17/2009                    | Tony Clark       | errg #3      |
| E19a.4 - Habitat Reserve County | C3G5J6        | 7/20/2009                    | Tony Clark       | # 4          |
| ParkerFlats-SurveyArea4         | C3F2I2        | 9/8/2009                     | Jack Kristensen  | eerg #8      |
| ParkerFlats-SurveyArea4         | C3F2J4        | 9/9/2009                     | Matthew Lauchner | erg seed 7   |
| ParkerFlats-SurveyArea6-7       | C3G2J9        | 9/14/2009                    | Tony Clark       |              |
| ParkerFlats-HabitatTrails       | C3G5F7        | 7/15/2009                    | Tony Clark       | errg #3      |
| ParkerFlats-HabitatTrails       | C3G5J6        | 7/17/2009                    | Tony Clark       | # 4          |
| ParkerFlats-HabitatTrails       | C3G6J2        | 7/20/2009                    | Matthew Lauchner |              |
| ParkerFlats-HabitatTrails       | C3H3A5        | 7/8/2009                     | Matthew Lauchner | seed # 6     |
| ParkerFlats-SurveyArea6-7       | C3H4F3        | 9/18/2009                    | Tony Clark       |              |
| ParkerFlats-HabitatTrails       | C3H5G5        | 7/20/2009                    | Matthew Lauchner | seed 5       |

Parker Flats MRA Phase II Remedial Investigation/Feasibility Study Work Areas 1 & 2 (Parcels E19a.4, E19a.2 & E19a.3) May 2010

### 1. Purpose

#### 1.1. OVERVIEW OF UXO SOPS

The series of Unexploded Ordnance (UXO) Standard Operation Procedures (SOPs) provide direction for and are applicable to the Munitions and Explosives of Concern (MEC) services provided by Engineering/Remediation Resources Group, Inc. (ERRG) and cover the breadth of the performance and verification of ERRG UXO services.

These policies and procedures are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with Work Plans (WP), other ERRG SOPs, the ERRG Accident Prevention Plan (APP), applicable Federal, State, local regulations, and contract restrictions and guidance.

#### 1.2. PURPOSE OF THIS SOP

The QA Blind Seed Program is a QA process in which QA personnel strategically emplace inert UXO items or simulant items within the project production area to test and validate the MEC operations detection process. The validity of blind seeding as a QA tool is based on assumptions that seed items will accurately mimic actual MEC items expected to be found in the production area. If the UXO team detects the blind seeds, QA personnel determine the MEC operations procedures are working as planned. If the UXO teams fail to find a blind seed, the detection process is either inadequate or being implemented inadequately. Blind seeding should be planned, implemented, a documented and controlled by the ERRG QA Manager.

### 2. Scope

This procedure applies to all instances where the responsibilities of ERRG QA Specialist are charged with the emplacement of QA or QC blind seeding on MEC Intrusive projects.

### 3. References

- ERRG Health and Safety Program;
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- Site Specific Health and Safety Plan;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- DOD 4145.26 M, Contractors' Safety Manual for Ammunition and Explosives;
- DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards;
- DOD 4160.21-M, Defense Reutilization and Marketing Manual;



## QA/QC Blind Seeding

- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications;

### 4. Definitions

**Discarded Military Munitions (DMM).** - Military munitions that have been abandoned without proper disposal or have been removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. §2710(e) (2)).

**Exclusion Zone** (EZ) – A zone in which unauthorized personnel are not allowed to be present during MEC clearance or disposal activities.

**Fuzes.** - Devices that initiate the detonation sequence in munitions. Fuzes are typically associated with munitions (e.g., mortars and bombs), but they are occasionally found separately. They may contain a charge large enough to cause injury. Magnetic and proximity fuzes are the most sensitive and, depending on other factors (e.g., fuze location and arming), greatly influence the likelihood of detonation. When separated from the munitions, a fuze may not look like an explosive munitions item.

The terms fuse and fuze mean different things. For this SOP, a fuze is a mechanical or electrical device with explosive or non-explosive components designed to initiate a train of fire or detonation in ordnance (e.g., hand grenade). A fuse is a cord of readily combustible material that can be lit at one end to carry a flame along the length of the fuse to detonate an explosive at the other end (e.g., firecracker).

**Military Munitions.** - Ammunition products and components produced for or used by the armed forces for national defense and security. The term military munitions include ammunition products or components under the control of the Department of Defense, the U.S. Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives; pyrotechnics; chemical and riot control agents; smokes and incendiaries; bulk explosives; chemical agents; chemical munitions; rockets; guided and ballistic missiles; bombs; warheads; mortar rounds; artillery ammunition; small arms ammunition; grenades; mines; torpedoes; depth charges; cluster munitions and dispensers; demolition charges; and devices and components thereof.

Military munitions do not include wholly inert items, improvised explosive devices, or nuclear weapons, nuclear devices, or nuclear components. However, military munitions do include non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. §2011 et seq.) have been completed. (10 U.S.C. §101(e)(4))



**Minimum Separation Distance (MSD)** – The minimum separation distance (MSD) is the minimum safe distance for non-essential personnel to be present during UXO Operations. Generally speaking, the maximum horizontal fragmentation distance is to be used for all unexploded ordnance (UXO) items as the MSD for all non-essential personnel for both intentional and unintentional detonations.

**Munitions Constituents (MC).** - Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials. MC also includes emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. §2710(e)(3)) Note: Munitions constituents are MEC when explosive compounds of the munitions, such as TNT, RDX, and HMX, are in sufficient concentration as to pose an explosive hazard. This situation arises when concentration levels are 10 percent or more. Non-explosive munitions constituents and explosive concentrations less than 10 percent are not considered MEC.

**Munitions and Explosives of Concern (MEC).** - Specific categories of military munitions that may pose unique explosive risks, including:

- unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5);
- discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or
- munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. (See "Munitions constituents")

**Munitions Response.** - Response actions—including investigation, removal actions, and remedial actions—to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.

**Unexploded Ordnance (UXO).** - Military munitions that:

- (a) have been primed, fuzed, armed, or otherwise prepared for action;
- (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and
- (c) remain unexploded whether by malfunction, design, or any other cause.

(10 U.S.C. §101(e)(5)(A) through (C)) P.L. 106-65, section 3031 (c)(5)(A), provides a more detailed description.

**UXO Operations** - UXO operations are defined as MEC identification; access procedures such as excavation, either by hand or using heavy equipment; handling of UXO, explosives or explosive items; or disposal, including movement, transportation, and final disposal of MEC.



### 5. Responsibilities

#### 5.1. PROCEDURE RESPONSIBILITY

The MEC Quality Assurance Manager is responsible for maintenance, management, and revision of this procedure. Questions, comments, or suggestions regarding this SOP should be sent to the MEC Operations Manager.

#### 5.2. PROJECT RESPONSIBILITY

ERRG QA Specialists performing this task, or any portion thereof, are responsible for meeting the requirements of this procedure. ERRG employees conducting technical review of task performance are also responsible for following appropriate portions of this SOP.

For those projects where the activities of this SOP are conducted, the UXO QA Specialist is responsible for ensuring that those activities are conducted in accordance with this and other appropriate procedures. Project participants are responsible for documenting information in sufficient detail to provide objective documentation that the requirements of this SOP have been met. Such documentation shall be retained as project records.

### 6. Procedure

#### 6.1. MEC AVOIDANCE AND SAFETY CONSIDERATIONS DURING QA SEED EMPLACEMENT

MEC Avoidance procedures specified and outlined in the ERRG MEC Avoidance SOP will be utilized during the emplacement of QA/QC seeds to ensure the safety of personnel involved in operations. This is a valid safety precaution as seeding operations are performed on sites with potential. QA/QC seeding operations will be under the supervision of UXO qualified personnel. Non-UXO trained personnel will not be allowed in the exclusion zone (EZ) or work zone unless accompanied by a UXO Technician. During operations, ERRG personnel will strictly adhere to ERRG's Corporate Health and Safety Plan and Site Specific Health and Safety Plan and the following general safety practices:

- Operations will be conducted only during daylight hours;
- Access to operating areas will be limited to only those personnel necessary to accomplish the specific operation;
- UXO will not be handled during avoidance operations, personnel will be directed away/around from the item;
- During UXO operations the minimum separation distance (MSD) between UXO and non-UXO operations is the fragmentation distance of the munition with the greatest fragmentation distance (MGFD), as stated in the Work Plan. Personnel remaining on-site will be limited to those personnel needed to safely and efficiently prepare the item/s for destruction.);
- Non UXO technicians will receive initial ordnance recognition and safety training prior to beginning operations and will be escorted by qualified UXO personnel at all times;



## QA/QC Blind Seeding

- All personnel will attend the daily safety briefing (tailgate safety briefing) prior to entering the operating area;
- Anyone can stop operations for an unsafe act or situation;
- Safety violations and/or unsafe acts will be immediately reported to the UXO Safety Officer (UXOSO);
- Failure to comply with safety rules/procedures may result in termination of employment.

#### 6.2. BLIND SEED EMPLACEMENT PROCEDURES

Prior to excavating for the purpose of subsurface seed placement a magnetometer will be utilized to ensure the excavation locations are free of MEC or MPPEH. This will prevent accidental detonation of buried MEC. The immediate area must be clear of metallic anomalies to ensure the intended detection of the blind seed is unimpeded. The procedures used after clearance with a magnetometer to emplace blind seeds are as follows:

- Ensure the seed item is marked with the correct ERRG seed identification number.
- Excavate the intended seed location to the predetermined depth, record depth utilizing the attached QA Seed Report.
- Emplace the blind seed and record burial data on the QA Seed Report as follows:
  - Place and record the blind seed item at depth with center mass of the item at the intended maximum depth.
  - Arrange and record the blind seed in the intended bearing and attitude. A picture of the item will then be taken.
- Once the blind seed has been emplaced and all data recorded, the item's location coordinates will be recorded on the QA Seed Report after being captured utilizing one of the following procedures, procedures are listed in order of preference priority:
  - When available an RTK GPS unit will be utilized to record the coordinates of the item.
  - When an RTK GPS is not available a handheld GPS may be utilized.
  - Measuring tapes used in conjunction with existing grid stakes and/or reacquired anomaly flags.
- The excavation will be backfilled with incremental amounts of soils, between each increment the backfill soils will be tamped to ensure optimum soil density.

#### 6.3. CONFIDENTIALITY PROCEDURES

The confidentiality of the blind seed location coordinates is necessary to maintain the validity and effectiveness of the QA/QC blind seeding program. To maintain confidentiality the coordinate file within the GPS unit utilized in the blind seed emplacements will be erased or cleared after the coordinates have been transferred to the QA Seed Report. If possible a plot map may be generated plotting the blind seed



## QA/QC Blind Seeding

locations. The QA Seed Report and plot map, if generated, will be filed and secured by the ERRG QA Manager in such a way as it will not be available to project personnel. Once a blind seed has been discovered during MEC Intrusive operations the QA Manager will compare the coordinates provided by the UXOQC and the coordinated recorded on the QA Seed Report. Once the blind seed has been verified as a blind seed the QA Manager will report the blind seed as discovered.

## 7. Forms

QA Seed Report.





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Transmitted via email: <a href="mailto:stan@fora.org">stan@fora.org</a>

July 29, 2010

Ref.: 28-006

Mr. Stan Cook Fort Ord Reuse Authority 100 12<sup>th</sup> Street Building 2880 Marina, CA 93933

#### <u>Third-Party Quality Assurance (QA) Oversight Services</u> <u>For</u> <u>Parker Flats MRA Phase II Remedial Investigation (RI)</u> <u>Work Area III FOR A DGM QA Resurvey Report</u> Former Fort Ord Facility, Monterey, California

Dear Mr. Cook:

Engineering/Remediation Resources Group, Inc. (ERRG) is pleased to submit this Quality Assurance (QA) oversight report related to munitions and explosives of concern (MEC) activities at the former Fort Ord Facility. ERRG in partnership with our team member InDepth, Inc conducted provided MEC QA oversight and geophysical QA oversight respectively.

We appreciate this opportunity to provide you with this interim report. If you have any questions or need additional information, please do not hesitate to contact me at (623) 266-9532. Thank you.

Sincerely,

Francises M Che

Frank Cota MEC Operations Manager

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# Acronyms and Abbreviations

| AOC     | Administrative Order on Consent                                       |
|---------|---|
| Army    | United States Army  |
| CERCLA  | Comprehensive Environmental Response, Compensation, and Liability Act |
| DGM     | digital geophysical mapping   |
| DQOs    | data quality objectives   |
| ERRG    | Engineering/Remediation Resources Group, Inc.                         |
| ESCA    | Environmental Services Cooperative Agreement                          |
| FORA    | Fort Ord Reuse Authority  |
| MEC     | munitions and explosives of concern                                   |
| QA      | quality assurance   |
| QC      | quality control   |
| QAOP    | quality assurance oversight professional                              |
| QASP    | Quality Assurance Surveillance Plan                                   |
| RI/FS   | Remediation Investigation/Feasibility Study                           |
| SOP     | Standard Operating Procedure  |
| U.S.EPA | United States Environmental Protection Agency                         |
| UXO     | unexploded ordnance   |
| Weston  | Weston Solutions Inc.   |

## Section 1. Introduction

In Spring 2005, the U.S. Army (Army) and the Fort Ord Reuse Authority (FORA) entered into negotiations to execute an Army-funded Environmental Services Cooperative Agreement (ESCA) leading to the transfer 3,340 acres of former Fort Ord prior to regulatory environmental sign-off. In early 2007, the Army awarded FORA a grant to perform munitions cleanup on the ESCA parcels. FORA also entered into an Administrative Order on Consent (AOC) with U.S. Environmental Protection Agency (U.S. EPA) and California Department of Toxic Substance Control, defining conditions under which FORA assumes responsibility for the Army remediation of the ESCA parcels. In order to complete the AOC defined work; FORA entered into a Remediation Services Agreement with Levine Fricke-Recon Inc. (LFR) to provide Munitions and Explosives of Concern (MEC) remediation services who partnered with Weston Solutions (Weston) to provide the actual MEC removal services. FORA, having the responsibility for management and quality of the ESCA remediation Resources Group, Inc. (ERRG) as an independent third-party Quality Assurance Oversight Professional (QAOP) to implement the QASP.

The QA efforts by ERRG in support of the Parker Flats Remedial Investigation/Feasibility Study (RI/FS) have been implemented in compliance with the QASP in an effort to satisfy regulatory concerns. Data contained in this report applies specifically to Parker Flats Work Area III which includes all or portions of parcels L20.8, E20c.1, E20c.2 and E23.2, a map of this area can be found in Figure 72910-A1. It is recognized that a MEC removal action may not successfully acquire and recover all MEC at the Munitions Response Site. The regulatory agencies have expressed concern regarding the residual risk that remains after MEC removals have taken place, particularly in areas that are slated for residential development (i.e., unrestricted land use). The effort is also intended to satisfy the requirements of the ESCA for the Parker Flats RI/FS.

## Section 2. Weston QA Efforts

The Weston team developed a quality assurance (QA)/quality control (QC) project plan to provide unbiased evidence of the quality of the data acquired and decisions made during the MEC investigations, as evaluated against the measurement performance criteria described in the Final Group 1 RI/FS Work Plan, Volume 2. The measurement performance criteria established are called Data Quality Objectives (DQOs). The primary methods used to provide evidence of compliance with DQOs are:

- Prequalification of policies and procedures
- Acceptable performance on test grids
- Auditing of field activities
- Acceptance sampling of completed work

The FORA ESCA Remediation Program (ESCA RP) is committed to using the Best Available (and appropriate) Detection Technology for locating subsurface MEC as established by the Ordnance Detection and Discrimination Study and subsequent projects. Where there were physical impediments to the use of Digital Geophysical Mapping (DGM), manual analog detection technologies were used.

The evaluation of each operation was accomplished through auditing. There were two methods of auditing employed, performance and procedural auditing. Performance audits were accomplished by burying a MEC simulant within the project boundaries (A procedure known as "Blind Seeding".). The system performance was evaluated based on whether the MEC simulant is located and recovered. Procedural audits were accomplished by checking the field operations against the policies and procedures in place.

Blind seed items were placed within areas investigated. The Unexploded Ordnance Quality Control Specialist in consultation with the Remediation Project Manager and determined the locations of the seed items. Seeds were located using a survey-grade GPS or equivalent within DGM grids. The blind seeds consist of equivalent MEC item simulants, buried no greater than the depth interval at which a 100% Possibility of Detection (Pd) was determined for the geophysical instrumentation used. The locations of the seed items were not disseminated to the other project personnel. QC and QA personnel reviewed the DGM data against the seed locations. Blind seed items were also placed in near-surface investigation area grids as a quality indicator.

ERRG's continuous review of the Weston team's implementation of the project QC/QA Plan resulted in no deficiencies noted in the Parker Flats Work Area III, in the portions of parcels L20.8, E20c.1, E20c.2 and E23.2 that are the subject of this report. Field inspection reports are located in Appendix B.

# Section 3. FORA QA Efforts

Having the responsibility for management and quality of the ESCA remediation program, FORA developed a QASP and hired ERRG as an independent third-party QAOP to implement the QASP. The QASP addresses specific Comprehensive Environment Response, Compensation, and Liability Act (CERCLA) requirements pursuant to the terms and conditions of the ESCA RP Programmatic and Site Specific Work Plans (Work Plan) governing the removal of remnant munitions and explosives of concern. The QASP objectives are to:

- Set forth procedures and guidelines that the independent third-party QAOP applies to monitor and evaluate the quality and safety of the Weston Team field work and related documentation.
- Outline procedures for working with the Weston Team to monitor their Quality Control QC/QA Program.
- Outline procedures for correcting deficiencies.

The surveillance methods utilized by the QAOP included:

- 100% Inspection At the completion of key milestones, performance was evaluated through 100% inspection (e.g., document review).
- Periodic Progress Inspection Periodic inspections may be conducted to evaluate progress toward and/or completion of key milestones and deliverables.
- Performance Metrics Two categories qualitative and quantitative have been established. Tasks
  that can be physically measured or evaluated are in the quantitative category, while tasks that are
  more subjective are in the qualitative category. Qualitative assessments/observations as observed by
  the Quality Assurance Oversight Professionals were entered in the comments block of the Quality
  Assurance Report (Appendix B).

The QAOP evaluated the Weston Team's program quality performance through the following methods:

- Review of Quality Control documentation and activities
- Qualitative review of Quality Control data for Instrument Functionality Checks
- Qualitative review of Quality Control root causes failure analyses.
- Observe adherence to the approved explosive safety submissions
- Observe work plan implementation and adherence
- Observe field activities
- Provide additional independent third-party blind seeding of DGM areas and perform dig sheet review for detection and recovery of blind seed items.
- Review of MEC waste management documentation

# Section 4. Digital Geophysical Mapping QA Procedures

ERRG has partnered with In-Depth to provide the services of a registered California Geophysicist, Mr. Brian Hecker, to provide Digital Geophysical Mapping Services QA Services. Digital QA procedures performed by the QAOP included the observation of Weston team field QC procedures and activities Weston, conducting and collecting site-specific data to comprehensively analyze the entire digital geophysical survey including data acquisition, processing and interpretation. A seeding program was implemented to in accordance with the FORA QASP. Monitoring of digital geophysical activities included:

- Operator performance
- Equipment performance
- Operator/Equipment procedures
- Unexploded ordnance (UXO) detection to depths of concern
- Removal of UXO of concern

#### 4.1 OPERATOR PERFORMANCE

The Weston Geophysical instrument operators were evaluated by the QA Geophysicist observing their instrument operation, data acquisition, and reacquisition procedures. Geophysical data processors were evaluated by analyzing the quality of the data processing, as shown in the processed data files and the target selection/interpretation results listed in the dig sheets. Appendix A contains detailed results of the operator performance auditing.

#### 4.2 MONITORING DIGITAL FIELD DATA ACQUISITION

The QA geophysicist evaluated the acquired and processed data. Data that indicated any of the following issues was noted:

- Data gaps along survey lines.
- Unreasonable data (e.g., systematic "spikes" or noise)
- Data incongruity across survey grids
- Inadequate data density along survey traverse
- Lack of accurate, precise locations; survey line orientation
- Inadequate/incomplete site survey coverage

Missing, incomplete, or noncompliant instrument standardization checks

Appendix A contains detailed results of digital field data acquisition and processing.

#### 4.3 THE QAOP QA SEEDING PROGRAM

A QAOP QA seeding program was implemented to provide an evaluation of Weston's capabilities to detect specific MEC at the highest levels of quality and to evaluation the spatial survey coverage of the investigation area. Industry accepted simulants consisting of 1" x 4" Pipe were used to satisfy this design component. Each simulant was identified and inventoried with a serial number for identification after recovery.

QA blind seeding actions were performed in accordance with the ERRG QA Blind Seed Standard Operating Procedure (SOP) (Appendix D). As specified in the ERRG Blind Seed SOP, at the time of emplacement the blind seed's depth, bearing, attitude and locations were recorded, documented and tracked by the QA Specialist to ensure their confidentiality and to maintain the validity of QA seed objectives. This blind seed placement provided a method to check survey detection ability and UXO team anomaly investigation confidence.

The QA seed tracking documents, provided in Appendix B, contain seed numbers and location information, such as GPS coordinates, and were strictly maintained by the ERRG QA Manager to ensure confidentiality until their discovery. Blind seed discovery was initially recorded by Weston in the Data GAP Seed Report and reviewed by the ERRG QA Manager to validate the discovered blind seed's location with the afore mentioned QA blind seed tracking documents. As verified by the ERRG QA Manager, Weston's discovery of all the QA emplaced blind seeds assures anomaly detection capability and thorough clearance of excavations of all anomalies.

All seed items placed were found in Parker Flats Work Area III, parcels L20.8, E20c.1, E20c.2 and E23.2 during the performance of RI/FS tasks. Field reports located in Appendix B detail the placement of the QA seeds. Appendix C contains details of the Weston Team's reporting of seeds recovered.

# Figures





July 9, 2010

Mr. Frank Cota ERRG, Incorporated 185 Mason Circle, Ste A Concord, California 94520

#### Subject: Draft Final Parker Flats MRA Phase II Remedial Investigation (RI) Work Area III FORA DGM QA Resurvey Report, Former Fort Ord Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Parker Flats Phase II MRA RI Work Area III Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord, Parker Flats Work Area III, which includes all or portions of parcels L20.8, E20c.1, E20c.2 and E23.2. This review was performed using the data available within the June 16, 2010 data transmittal provided by Mark Saunders of Weston Solutions, Inc. and DGM QA resurvey data obtained on June 25 and July 2, 2010.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Parker Flats Phase II MRA RI Work Area III DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout the Parker Flats Work Area III. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for all of the investigation areas identified covering a total area of approximately 34 acres in Work Area III. InDepth performed a DGM QA resurvey of 1.8 acres, representing approximately 5% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation on July 7, 2010. ERRG provided the Intrusive investigation results to InDepth on July 7, 2010. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase II MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

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## DGM QA DATA EVALUATION PROCEDURES

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

## PARKER FLATS PHASE II MRA RI WORK AREA III DGM DATA EVALUATION RESULTS

Data evaluation was performed for the Parker Flats Phase II MRA RI Work Area III DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

## PARKER FLATS PHASE II MRA RI WORK AREA III DGM QA RESURVEY

**Parker Flats Work Area III Grid 1 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 1 QA polygon (C2C6I4) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 13 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Seven of the 13 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 13 targets resulted in two no-contacts (false-positives), five pieces of munitions related debris and 5 small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 1 QA Resurvey meet the work plan QA objectives.

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**Parker Flats Work Area III Grid 2 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 2 polygon (C2C6F4) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and four geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the four DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these four targets resulted in no false-positives, one piece of munition related debris and three small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 2 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area III Grid 3 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 3 polygon (C2C6D9) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in 10,000 ft<sup>2</sup> and of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and two geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Both of the DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in one false-positive, and one piece of scrap metal, as shown in Table 3. The mass of the recovered objects were less than the mass of a 37mm projectile. Therefore, the results of the Parker Flats Work Area III Grid 3 QA Resurvey meet the work plan QC objectives.

**Parker Flats Work Area III Grid 4 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 4 polygon (C2C6C2) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and seven geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Six of the seven DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in one false-positive, and six small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 4 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area III Grid 5 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 5 polygon (C2C6C3) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 5. The QA DGM resurvey resulted in a site characterized by background readings and eighteen geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Eight of the eighteen DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in eight false-positives, two pieces of munitions related debris, and eight small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered
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within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 5 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area III Grid 6 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 6 polygon (C2B5F8) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 6. The QA DGM resurvey resulted in a site characterized by background readings and four geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the four DGM QA targets was located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in one false-positive, two corner stakes and one small metallic item, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 6 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area III Grid 7 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 7 polygon (C2B5E8) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 7. The QA DGM resurvey resulted in a site characterized by background readings and six geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Two of the six DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in six false-positives from very low amplitude anomalies most likely the result of power-line interference, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 7 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area III Grid 8 QA Resurvey Results.** The QA resurvey in the Work Area III Grid 8 polygon (C2B6G6) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 8. The QA DGM resurvey resulted in a site characterized by background readings and twenty-eight geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Four of the twenty-eight DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these targets resulted in twenty-eight false-positives from very low amplitude anomalies most likely the result of power-line interference, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area III Grid 8 QA Resurvey meet the work plan QA objectives.

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### PARKER FLATS PHASE II MRA RI WORK AREA III RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded, the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 82 targets resulted in 47 false-positives, 8 items of MEC related debris; the remaining targets were associated various pieces of scrap metal and survey control spikes, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of aggressive target selection of low amplitude anomalies identified in the grids located directly under the overhead power-lines. None of the MEC related debris items recovered during the intrusive activities had a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area III QA Resurvey indicates that the Weston Work Area III DGM data and results meet the work plan QA objectives.

### CONCLUSIONS AND RECOMMENDATIONS

The results of the Parker Flats Work Area III DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Parker Flats Work Area III DGM QA Resurvey thirty of the DGM QA targets were identified within 3.0 feet of an existing Weston DGM target. However, none of these targets resulted in the discovery of a munitions related debris item with a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area III QA Resurvey indicates that the Weston Work Area III DGM data and results meet the work plan QA objectives.

## STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were

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conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

### Respectfully, InDepth Corporation

Brin Hecker Brian W. Hecker

Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables QA Resurvey Data Evaluation Figures

cc: file

#### Table 1.

## DGM QA Resurvey Investigation Summary Parker Flats Work Area III FORA DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Geophysical<br>Operation | Parker Flats<br>Area<br>Designation | FORA Grid<br>Designation | Total Area<br>Investigated<br>(sqft) | Number of<br>Targets |
|--------------------------|-------------------------------------|--------------------------|--------------------------------------|----------------------|
| QA Resurvey              | WAIII Grid 1                        | C2C6I4                   | 10000                                | 13                   |
| QA Resurvey              | WAIII Grid 2                        | C2C6F4                   | 10000                                | 4                    |
| QA Resurvey              | WAIII Grid 3                        | C2C6D9                   | 10000                                | 2                    |
| QA Resurvey              | WAIII Grid 4                        | C2C6C2                   | 10000                                | 7                    |
| QA Resurvey              | WAIII Grid 5                        | C2C6C3                   | 10000                                | 18                   |
| QA Resurvey              | WAIII Grid 6                        | C2B5F8                   | 10000                                | 4                    |
| QA Resurvey              | WAIII Grid 7                        | C2B5E8                   | 10000                                | 6                    |
| QA Resurvey              | WAIII Grid 8                        | C2B6G6                   | 10000                                | 28                   |

QA Intrusive Investigation Results

Parker Flats Work Area III FORA DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project Name:        |                  |               | FORA QA2 R                        | esurvey         |                 | UXO Contract      | or               | LFR / Weston         |          | Equipment     | Serial Number  |
|----------------------|------------------|---------------|-----------------------------------|-----------------|-----------------|-------------------|------------------|----------------------|----------|---------------|----------------|
| Project Location:    |                  |               | Monterey Cou                      | inty, CA        |                 | Geophysical C     | Contractor:      | Weston               |          | EM61          | Weston         |
| Coordinate System:   |                  |               | NAD83 CS83                        | Zone 4 (US su   | rvey feet)      | Project Geoph     | nysicist:        | Matthew Gifford      |          | Allegro       | Weston         |
| Survey Area:         |                  |               | Parker Flats V                    | Vork Area III   |                 | QC Geophysic      | cist:            |                      |          | Magnetometer  | Schonstedt     |
| Field Team:          |                  |               |                                   |                 |                 | Regulatory PC     | DC:              |                      |          | All Metals    | White XLT      |
| Date: July 2010      |                  |               |                                   |                 |                 | QA Contractor     | r:               | InDepth / ERRG       |          | Positioning   | Trimble RTK    |
| Team Leader Signat   | ure:             |               |                                   |                 |                 | QA Geophysic      | cist:            | Brian Hecker         |          |               | NA             |
| Project:             | FORA QA2 Res     | urvey         |                                   | Survey Area:    |                 | Parker Flats V    | Vork Area III    | Field Team:          | C        | Date:         |                |
| NOTE 1 - Anomaly T   | ype: U = UXO, F  | = Frag, MD =  | <ul> <li>Munitions Del</li> </ul> | bris, S = Scrap | , A = Small Arn | ns Ammunition     | , NC = No Cor    | ntact, O = Other     |          |               |                |
| NOTE 2 - Target Azi  | muth: N = North, | NW = Northw   | est, W = West                     | , SW = Southw   | est, S = South, | SE = Southea      | ist, E = East, N | IE = Northeas        |          |               |                |
| NOTE 3 - Target Incl | nation: NU = Ver | tical Nose Up | , ND = Vertical                   | Nose Down, IN   | NU = Inclined N | lose Up, IND =    | Inclined Nose    | e Down, H = Horizont | a        |               |                |
| Т                    | arget Info       |               | Reacquisi                         | tion Survey     |                 |                   |                  |                      | Dig      | g Results     |                |
| Target Name          | Instrument       | Units         | Channel                           | Response        | Anomaly<br>Type | Approx.<br>Weight | Azimuth          | Inclination of       | Depth to | Digital Photo | Comments       |
| rarget name          | Response         | Onits         | onanner                           | (mV)            | (note 1)        | (Lbs.)            | (note 2)         | nose (note 3)        | (inches) | Number        | Connents       |
| WAIII_G1_01          | 28.5             | Stack mV      | Ch3                               |                 | MD              | 0.01              |                  |                      | 2        | 10            | multiple links |
| WAIII_G1_02          | 28.5             | Stack mV      | Ch3                               |                 | S               | 0.002             |                  |                      | surface  | 8             | wire           |
| WAIII_G1_03          | 25.8             | Stack mV      | Ch3                               |                 | S               | 0.002             |                  |                      | 1        | 8             | wire           |
| WAIII_G1_04          | 36.0             | Stack mV      | Ch3                               |                 | MD              | 0.002             |                  |                      | 1        | 9             | link           |
| WAIII_G1_05          | 99.2             | Stack mV      | Ch3                               |                 | MD              | 0.001             |                  |                      | 2        | 7             | link           |
| WAIII_G1_06          | 282.4            | Stack mV      | Ch3                               |                 | MD              | 0.001             |                  |                      | 2        | 6             | link           |
| WAIII_G1_07          | 28.1             | Stack mV      | Ch3                               |                 | NC              | -                 |                  |                      | -        | -             | no contact     |
| WAIII_G1_08          | 33.4             | Stack mV      | Ch3                               |                 | S               | 0.001             |                  |                      | 4        | 3             | wire-fence     |

| WAIII_G1_09 | 29.7  | Stack mV | Ch3 | S  | 0.001 |  | 4       | 4  | wire-fence               |
|-------------|-------|----------|-----|----|-------|--|---------|----|--------------------------|
| WAIII_G1_10 | 42.1  | Stack mV | Ch3 | MD | 0.001 |  | 2       | 5  | link                     |
| WAIII_G1_11 | 37.9  | Stack mV | Ch3 | S  | -     |  | 2       | -  | moving scrap - too small |
| WAIII_G1_12 | 31.8  | Stack mV | Ch3 | NC | -     |  | -       | -  | no contact               |
| WAIII_G1_13 | 34.2  | Stack mV | Ch3 | S  | 0.001 |  | 1       | -  | moving scrap - too small |
| WAIII_G2_01 | 21.3  | Stack mV | Ch3 | MD | 0.700 |  | surface | 14 | frag                     |
| WAIII_G2_02 | 37.0  | Stack mV | Ch3 | S  | 0.001 |  | surface | 13 | wire                     |
| WAIII_G2_03 | 30.3  | Stack mV | Ch3 | S  | 0.001 |  | surface | 12 | wire                     |
| WAIII_G2_04 | 26.4  | Stack mV | Ch3 | S  | 0.001 |  | surface | 11 | wire in root bulb        |
| WAIII_G3_01 | 30.8  | Stack mV | Ch3 | NC | -     |  | -       | -  | no contact               |
| WAIII_G3_02 | 23.0  | Stack mV | Ch3 | S  | 0.300 |  | 2       | 36 | 2 x 3 long scrap metal   |
| WAIII_G4_01 | 52.5  | Stack mV | Ch3 | S  | 0.010 |  | surface | 19 | multiple wire strands    |
| WAIII_G4_02 | 20.8  | Stack mV | Ch3 | S  | 0.010 |  | 1       | 19 | nail                     |
| WAIII_G4_03 | 20.8  | Stack mV | Ch3 | NC | -     |  | -       | 20 | sled bump??              |
| WAIII_G4_04 | 108.3 | Stack mV | Ch3 | S  | 0.010 |  | surface | 21 | wire - 10"               |

QA Intrusive Investigation Results

Parker Flats Work Area III FORA DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:             | FORA QA2 Res           | urvey          |                | Survey Area:     |                             | Parker Flats V              | Vork Area III                  | Field Team:                  | 0                           | Date:                   |  |
|----------------------|------------------------|----------------|----------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|--|
| NOTE 1 - Anomaly     | Гуре: U = UXO, F       | = Frag, MD =   | Munitions Del  | bris, S = Scrap  | , A = Small Arn             | ns Ammunition               | , NC = No Cor                  | ntact, O = Other             |                             |                         |  |
| NOTE 2 - Target Azi  | muth: $N = North$ ,    | NW = Northw    | est, W = West, | , SW = Southw    | est, S = South,             | SE = Southea                | ist, E = East, N               | IE = Northeas                | _                           |                         |  |
| NOTE 3 - Target Inci | arget Info             | lical Nose Up, | , ND = Venical | Nose Down, In    | NU = Inclined N             | iose up, ind =              | Inclined Nose                  | DOWN, H = HONZONN            | a<br>Dia                    | Doculto                 |  |
| Target Name          | Instrument<br>Response | Units          | Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments                                 |
| WAIII_G4_05          | 41.8                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | surface                     | 16                      | wire                                     |
| WAIII_G4_06          | 25.5                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | 2                           | 15                      | nail                                     |
| WAIII_G4_07          | 20.1                   | Stack mV       | Ch3            |                  | S                           | -                           |                                |                              | surface                     | -                       | moving on surface                        |
| WAIII_G5_01          | 30.4                   | Stack mV       | Ch3            |                  | MD                          | 0.010                       |                                |                              | surface                     | 28                      | frag - 3" long                           |
| WAIII_G5_02          | 49.3                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | surface                     | 27                      | long nail                                |
| WAIII_G5_03          | 71.2                   | Stack mV       | Ch3            |                  | S                           | -                           |                                |                              | 10                          | 17                      | comm wire - 2.5'                         |
| WAIII_G5_04          | 44.6                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | -                       | gopher holes? Next to #5                 |
| WAIII_G5_05          | 73.9                   | Stack mV       | Ch3            |                  | MD                          | 0.010                       |                                |                              | surface                     | 29                      | unknown MD                               |
| WAIII_G5_06          | 32.1                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | surface                     | 31                      | nail                                     |
| WAIII_G5_07          | 23.9                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | 1                           | 30                      | nail                                     |
| WAIII_G5_08          | 21.0                   | Stack mV       | Ch3            |                  | S                           | -                           |                                |                              | surface                     | 24                      | long wires - 24" plus                    |
| WAIII_G5_09          | 47.2                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | surface                     | 25                      | staple - large                           |
| WAIII_G5_10          | 63.2                   | Stack mV       | Ch3            |                  | S                           | -                           |                                |                              | -                           | -                       | multiple wire - too small                |
| WAIII_G5_11          | 36.1                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | surface                     | 26                      | piece of aluminum                        |
| WAIII_G5_12          | 31.7                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_13          | 25.4                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_14          | 20.8                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_15          | 29.8                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_16          | 27.6                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_17          | 31.8                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 22/23                   | no contact - disturbed dirt              |
| WAIII_G5_18          | 23.4                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | 32                      | no contact - next to road - gopher holes |
| WAIII_G6_01          | 1794.3                 | Stack mV       | Ch3            |                  | 0                           | -                           |                                |                              | -                           | 35                      | survey marker                            |
| WAIII_G6_02          | 76.7                   | Stack mV       | Ch3            |                  | NC                          | -                           |                                |                              | -                           | -                       | powerlines?                              |
| WAIII_G6_03          | 24.3                   | Stack mV       | Ch3            |                  | S                           | 0.001                       |                                |                              | -                           | 33                      | staple - straightened                    |
| WAIII_G6_04          | 304.2                  | Stack mV       | Ch3            |                  | 0                           | -                           |                                |                              | -                           | 34                      | survey marker/nail                       |
| WAIII_G7_01          | 21.0                   | Stack mV       | Ch3            |                  | 0                           | -                           |                                |                              | -                           |                         | under power lines                        |
| WAIII G7 02          | 20.4                   | Stack mV       | Ch3            |                  | 0                           | -                           |                                |                              | -                           | -                       | right under power lines                  |

QA Intrusive Investigation Results

Parker Flats Work Area III FORA DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:             | FORA QA2 Res           | urvey         |                                   | Survey Area:     |                  | Parker Flats V   | Vork Area III       | Field Team:                  | 0               | Date:                   |                             |
|----------------------|------------------------|---------------|-----------------------------------|------------------|------------------|------------------|---------------------|------------------------------|-----------------|-------------------------|-----------------------------|
| NOTE 1 - Anomaly 1   | Гуре: U = UXO, F       | = Frag, MD =  | <ul> <li>Munitions Del</li> </ul> | bris, S = Scrap  | , A = Small Arr  | ns Ammunition    | , NC = No Cor       | itact, O = Other             |                 |                         |                             |
| NOTE 2 - Target Azi  | muth: N = North,       | NW = Northw   | est, W = West,                    | , SW = Southw    | est, S = South,  | SE = Southea     | ist, E = East, N    | IE = Northeas                |                 |                         |                             |
| NOTE 3 - Larget Incl | ination: NU = Ver      | tical Nose Up | , ND = Vertical                   | Nose Down, If    | NU = Inclined N  | lose Up, IND =   | Inclined Nose       | Down, H = Horizoni           |                 | <u> </u>                |                             |
| 1                    | arget Info             |               | Reacquisi                         | tion Survey      | A                | 0                | 0-1                 |                              | Dig             | Results                 |                             |
| Target Name          | Instrument<br>Response | Units         | Channel                           | Response<br>(mV) | Type<br>(note 1) | Weight<br>(Lbs.) | of nose<br>(note 2) | Inclination of nose (note 3) | top<br>(inches) | Digital Photo<br>Number | Comments                    |
| WAIII_G7_03          | 23.8                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G7_04          | 21.2                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G7_05          | 20.2                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G7_06          | 24.8                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | below power lines           |
| WAIII_G8_01          | 24.4                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | powerlines                  |
| WAIII_G8_02          | 26.5                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | powerlines                  |
| WAIII_G8_03          | 33.4                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | powerlines                  |
| WAIII_G8_04          | 25.8                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | powerlines                  |
| WAIII_G8_05          | 20.7                   | Stack mV      | Ch3                               |                  | S                | -                |                     |                              | -               | -                       | small wires - moving around |
| WAIII_G8_06          | 35.7                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | power line - under          |
| WAIII_G8_07          | 20.3                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_08          | 23.9                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | power line - under          |
| WAIII_G8_09          | 23.3                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_10          | 28.9                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | power lines                 |
| WAIII_G8_11          | 25.8                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII_G8_12          | 34.3                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII_G8_13          | 34.6                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_14          | 31.0                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_15          | 28.9                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII_G8_16          | 24.6                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII_G8_17          | 20.4                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_18          | 22.5                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_19          | 22.8                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII_G8_20          | 20.1                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_21          | 22.2                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | right under power lines     |
| WAIII_G8_22          | 25.6                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |
| WAIII G8 23          | 22.0                   | Stack mV      | Ch3                               |                  | 0                | -                |                     |                              | -               | -                       | under power lines           |

QA Intrusive Investigation Results

Parker Flats Work Area III FORA DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:             | FORA QA2 Res           | urvey         |                                  | Survey Area:     |                             | Parker Flats V              | Vork Area III                  | Field Team:                  | 0                           | Date:                   |                         |
|----------------------|------------------------|---------------|----------------------------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|-------------------------|
| NOTE 1 - Anomaly T   | Гуре: U = UXO, F       | = Frag, MD =  | <ul> <li>Munitions De</li> </ul> | bris, S = Scrap  | , A = Small Arn             | ns Ammunition               | , NC = No Cor                  | ntact, O = Other             |                             |                         |                         |
| NOTE 2 - Target Azi  | imuth: N = North,      | NW = Northw   | est, W = West                    | , SW = Southw    | est, S = South,             | SE = Southea                | ist, E = East, N               | IE = Northeas                |                             |                         |                         |
| NOTE 3 - Target Incl | ination: NU = Ver      | tical Nose Up | , ND = Vertical                  | l Nose Down, II  | NU = Inclined N             | lose Up, IND =              | Inclined Nose                  | Down, H = Horizont           | а                           |                         |                         |
| Т                    | arget Info             |               | Reacquisi                        | tion Survey      |                             |                             |                                |                              | Dig                         | g Results               |                         |
| Target Name          | Instrument<br>Response | Units         | Channel                          | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments                |
| WAIII_G8_24          | 22.1                   | Stack mV      | Ch3                              |                  | 0                           | -                           |                                |                              | -                           | -                       | under power lines       |
| WAIII_G8_25          | 27.0                   | Stack mV      | Ch3                              |                  | 0                           | -                           |                                |                              | -                           | -                       | power lines             |
| WAIII_G8_26          | 24.2                   | Stack mV      | Ch3                              |                  | 0                           | -                           |                                |                              | -                           | -                       | under power lines       |
| WAIII_G8_27          | 23.8                   | Stack mV      | Ch3                              |                  | 0                           | -                           |                                |                              | -                           | -                       | under power lines       |
| WAIII_G8_28          | 21.4                   | Stack mV      | Ch3                              |                  | 0                           | -                           |                                |                              | -                           | -                       | right under power lines |

### Table 2.

## DGM QA Target List Parker Flats Work Area III FORA DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Elate  |             | Fasting   | Northing  | Target   |       |
|---------------|-------------|-----------|-----------|----------|-------|
|               | Target Name |           |           | Response | Unite |
|               | rarget Name |           |           | Value    | Units |
| Designation   |             | Feet)     | Feet)     | (Sum)    |       |
| Work Area III | WAIII_G1_01 | 5740818.5 | 2124819.5 | 28.5     | mV    |
| Work Area III | WAIII_G1_02 | 5740829.5 | 2124823.0 | 28.5     | mV    |
| Work Area III | WAIII_G1_03 | 5740829.0 | 2124825.5 | 25.8     | mV    |
| Work Area III | WAIII_G1_04 | 5740818.0 | 2124827.0 | 36.0     | mV    |
| Work Area III | WAIII_G1_05 | 5740837.0 | 2124831.5 | 99.2     | mV    |
| Work Area III | WAIII_G1_06 | 5740840.5 | 2124831.5 | 282.4    | mV    |
| Work Area III | WAIII_G1_07 | 5740852.0 | 2124866.5 | 28.1     | mV    |
| Work Area III | WAIII_G1_08 | 5740807.0 | 2124886.5 | 33.4     | mV    |
| Work Area III | WAIII_G1_09 | 5740812.5 | 2124886.5 | 29.7     | mV    |
| Work Area III | WAIII_G1_10 | 5740823.5 | 2124890.0 | 42.1     | mV    |
| Work Area III | WAIII_G1_11 | 5740826.0 | 2124890.0 | 37.9     | mV    |
| Work Area III | WAIII_G1_12 | 5740851.0 | 2124893.5 | 31.8     | mV    |
| Work Area III | WAIII_G1_13 | 5740822.0 | 2124896.5 | 34.2     | mV    |
| Work Area III | WAIII_G2_01 | 5740802.0 | 2124562.5 | 21.3     | mV    |
| Work Area III | WAIII_G2_02 | 5740833.5 | 2124574.0 | 37.0     | mV    |
| Work Area III | WAIII_G2_03 | 5740829.0 | 2124589.5 | 30.3     | mV    |
| Work Area III | WAIII_G2_04 | 5740838.0 | 2124596.0 | 26.4     | mV    |
| Work Area III | WAIII_G3_01 | 5741371.5 | 2124314.0 | 30.8     | mV    |
| Work Area III | WAIII_G3_02 | 5741304.0 | 2124347.0 | 23.0     | mV    |
| Work Area III | WAIII_G4_01 | 5740683.5 | 2124216.5 | 52.5     | mV    |
| Work Area III | WAIII_G4_02 | 5740645.5 | 2124235.5 | 20.8     | mV    |
| Work Area III | WAIII_G4_03 | 5740621.0 | 2124240.0 | 20.8     | mV    |
| Work Area III | WAIII_G4_04 | 5740602.5 | 2124244.5 | 108.3    | mV    |
| Work Area III | WAIII_G4_05 | 5740669.0 | 2124259.0 | 41.8     | mV    |
| Work Area III | WAIII_G4_06 | 5740669.0 | 2124267.0 | 25.5     | mV    |
| Work Area III | WAIII_G4_07 | 5740683.0 | 2124267.5 | 20.1     | mV    |
| Work Area III | WAIII_G5_01 | 5740758.0 | 2124245.5 | 30.4     | mV    |
| Work Area III | WAIII_G5_02 | 5740761.0 | 2124247.5 | 49.3     | mV    |
| Work Area III | WAIII_G5_03 | 5740710.0 | 2124248.0 | 71.2     | mV    |
| Work Area III | WAIII_G5_04 | 5740773.5 | 2124250.5 | 44.6     | mV    |
| Work Area III | WAIII_G5_05 | 5740771.5 | 2124253.5 | 73.9     | mV    |
| Work Area III | WAIII_G5_06 | 5740797.5 | 2124255.5 | 32.1     | mV    |
| Work Area III | WAIII_G5_07 | 5740787.0 | 2124263.5 | 23.9     | mV    |

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### Table 2.

## DGM QA Target List Parker Flats Work Area III FORA DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats  |             | Fasting   | Northing  | Target   |       |
|---------------|-------------|-----------|-----------|----------|-------|
|               | Target Name |           |           | Response | Unite |
|               | rarget Name |           |           | Value    | Units |
| Designation   |             | Feet)     | Feet)     | (Sum)    |       |
| Work Area III | WAIII_G5_08 | 5740756.0 | 2124264.5 | 21.0     | mV    |
| Work Area III | WAIII_G5_09 | 5740762.5 | 2124264.5 | 47.2     | mV    |
| Work Area III | WAIII_G5_10 | 5740760.0 | 2124268.0 | 63.2     | mV    |
| Work Area III | WAIII_G5_11 | 5740754.0 | 2124268.5 | 36.1     | mV    |
| Work Area III | WAIII_G5_12 | 5740756.0 | 2124272.5 | 31.7     | mV    |
| Work Area III | WAIII_G5_13 | 5740758.5 | 2124273.0 | 25.4     | mV    |
| Work Area III | WAIII_G5_14 | 5740759.5 | 2124276.0 | 20.8     | mV    |
| Work Area III | WAIII_G5_15 | 5740754.5 | 2124276.5 | 29.8     | mV    |
| Work Area III | WAIII_G5_16 | 5740762.5 | 2124276.5 | 27.6     | mV    |
| Work Area III | WAIII_G5_17 | 5740751.0 | 2124279.5 | 31.8     | mV    |
| Work Area III | WAIII_G5_18 | 5740786.5 | 2124288.5 | 23.4     | mV    |
| Work Area III | WAIII_G6_01 | 5740208.5 | 2123478.0 | 1794.3   | mV    |
| Work Area III | WAIII_G6_02 | 5740269.0 | 2123478.0 | 76.7     | mV    |
| Work Area III | WAIII_G6_03 | 5740287.5 | 2123495.5 | 24.3     | mV    |
| Work Area III | WAIII_G6_04 | 5740298.0 | 2123496.0 | 304.2    | mV    |
| Work Area III | WAIII_G7_01 | 5740282.0 | 2123307.0 | 21.0     | mV    |
| Work Area III | WAIII_G7_02 | 5740214.5 | 2123329.5 | 20.4     | mV    |
| Work Area III | WAIII_G7_03 | 5740276.0 | 2123346.0 | 23.8     | mV    |
| Work Area III | WAIII_G7_04 | 5740279.0 | 2123350.5 | 21.2     | mV    |
| Work Area III | WAIII_G7_05 | 5740240.5 | 2123358.5 | 20.2     | mV    |
| Work Area III | WAIII_G7_06 | 5740278.5 | 2123375.0 | 24.8     | mV    |
| Work Area III | WAIII_G8_01 | 5741098.0 | 2123626.5 | 24.4     | mV    |
| Work Area III | WAIII_G8_02 | 5741094.5 | 2123627.0 | 26.5     | mV    |
| Work Area III | WAIII_G8_03 | 5741083.0 | 2123627.5 | 33.4     | mV    |
| Work Area III | WAIII_G8_04 | 5741091.5 | 2123627.5 | 25.8     | mV    |
| Work Area III | WAIII_G8_05 | 5741086.5 | 2123630.0 | 20.7     | mV    |
| Work Area III | WAIII_G8_06 | 5741094.5 | 2123630.5 | 35.7     | mV    |
| Work Area III | WAIII_G8_07 | 5741008.0 | 2123632.5 | 20.3     | mV    |
| Work Area III | WAIII_G8_08 | 5741095.0 | 2123632.5 | 23.9     | mV    |
| Work Area III | WAIII_G8_09 | 5741008.0 | 2123634.5 | 23.3     | mV    |
| Work Area III | WAIII_G8_10 | 5741094.0 | 2123639.5 | 28.9     | mV    |
| Work Area III | WAIII_G8_11 | 5741015.0 | 2123644.5 | 25.8     | mV    |
| Work Area III | WAIII_G8_12 | 5741002.0 | 2123646.5 | 34.3     | mV    |

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### Table 2.

## DGM QA Target List Parker Flats Work Area III FORA DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats<br>Area<br>Designation | Target Name | Easting<br>(US Survey<br>Feet) | Northing<br>(US Survey<br>Feet) | Target<br>Response<br>Value<br>(Sum) | Units |
|-------------------------------------|-------------|--------------------------------|---------------------------------|--------------------------------------|-------|
| Work Area III                       | WAIII_G8_13 | 5741034.5                      | 2123653.5                       | 34.6                                 | mV    |
| Work Area III                       | WAIII_G8_14 | 5741016.0                      | 2123654.5                       | 31.0                                 | mV    |
| Work Area III                       | WAIII_G8_15 | 5741004.0                      | 2123657.0                       | 28.9                                 | mV    |
| Work Area III                       | WAIII_G8_16 | 5741007.0                      | 2123661.0                       | 24.6                                 | mV    |
| Work Area III                       | WAIII_G8_17 | 5741091.5                      | 2123669.5                       | 20.4                                 | mV    |
| Work Area III                       | WAIII_G8_18 | 5741047.5                      | 2123670.0                       | 22.5                                 | mV    |
| Work Area III                       | WAIII_G8_19 | 5741074.0                      | 2123670.0                       | 22.8                                 | mV    |
| Work Area III                       | WAIII_G8_20 | 5741040.0                      | 2123672.5                       | 20.1                                 | mV    |



















### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 9-11-09   |
|---|
| Work Task (Milestone/Activity): Parker Flats  |
| Survey Period: 9-01-09  |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Visual   |
| Observations Concerning the LFR Team's Performance  |
| Observations/Inspections performed by Jesse. J. Sipult, ERRO MEC Quality Assurance Professional.  |
| Undervations:   |
| The purpose of this site visit/audit was to observe the field UKO Teams conducting the investigation/clearance of the neavity containinated polygons in the Parker  |
| Plats Area. I observed the UAO Teams conducting anomaly investigations in Area 5 and sitting operations in Area 1.  |
| Corrective Action Required: Yes No  |
| Evaluation of LFR Team's Performance During Surveillance Activities:  |
| Overall this process is an effective process that will allow the LFR/Weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies |
| from these polygon areas.   |
| f. Atro   |



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 9-16-09                                       |  |
|---|--|
| Work Task (Milestone/Activity):                     | Parker Flats   |
| Survey Period:                                      | 9-08-09  |
| Method of Surveillance (Visual, I                   | Document Review, Inspection, etc): Visual  |
| Observations Concerning the LF                      | FR Team's Performance  |
| Observations:                                       | npun, EKKO MEC Quanty Assurance Professional.  |
| The purpose of this site visit/audit was to observe | the field UXO Teams conducting the investigation/clearance of the heavily contaminated polygons in the Parker    |
| Flats Area. I observed the UXO Teams conductin      | g polygon excavation and sifting in Area 3 and anomaly investigation in Area 4.                                  |
|   |  |
| Corrective Action Required:                         | Yes No   |
| Evaluation of LFR Team's Perfo                      | ormance During Surveillance Activities:  |
| Overall this process is an effective process that w | ill allow the LFR/Weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies |
| from these polygon areas.                           |  |
| f. Atus   |  |



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 10-27-09  |
|---|
| Work Task (Milestone/Activity): Parker Flats Area 3 QA Seeding Program  |
| Survey Period: 10-15-09   |
| Method of Surveillance (Visual, Document Review, Inspection, etc): Seeding Program  |
| Observations Concerning the LFR Team's Performance<br>Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.                     |
| Observations:   |
| The purpose of this site visit/audit was for the QA Professional to place seeds in Parker Flats Work Area 3. Attached you will find the Northings and Eastings of the |
| fifteen (15) seeds that were placed. A future audit will be submitted when the LFR/Weston team discovers the seeds.   |
| Corrective Action Required: Yes No  |
| Evaluation of LFR Team's Performance During Surveillance Activities:  |
| Evaluation Discussion:  |
| Miegory B. Jawh   |

| SEED ID      | NORTHING    | EASTING     | ELEVATION |  |
|--------------|-------------|-------------|-----------|--|
| errg seed 1  | 2124665.097 | 5741607.438 | 417.895   |  |
| errg seed 2  | 2124620.785 | 5741532.191 | 420.105   |  |
| errg seed 3  | 2124687.575 | 5741453.725 | 427.106   |  |
| errg seed 4  | 2124554.042 | 5741391.792 | 425.988   |  |
| errg seed 5  | 2124370.79  | 5741389.225 | 428.7     |  |
| errg seed 6  | 2124204.526 | 5741385.7   | 447.236   |  |
| errg seed 7  | 2124103.495 | 5741285.298 | 455.452   |  |
| errg seed 8  | 2123908.265 | 5741333.219 | 444.441   |  |
| errg seed 9  | 2123793.514 | 5741156.53  | 440.235   |  |
| errg seed 10 | 2124136.604 | 5741005.095 | 452.902   |  |
| errg seed 11 | 2124241.263 | 5740922.592 | 443.413   |  |
| errg seed 12 | 2124405.114 | 5740746.25  | 440.604   |  |
| errg seed 13 | 2124475.708 | 5740986.684 | 464.001   |  |
| errg seed 14 | 2124663.61  | 5741238.719 | 443.247   |  |
| errg seed 15 | 2124852.852 | 5741158.021 | 451.267   |  |

### QA Seed Recovery Log Parker Flats Work Area III

| Work Area               | Grid No.      | Date Recovered | Recovered By     | Notes           |
|-------------------------|---------------|----------------|------------------|-----------------|
| E20c.2 - Housing Future | C2B6H7        | 12/4/2009      | Robert Smith     | errg seed 9     |
| E20c.2 - Housing Future | C2B6J9        | 11/18/2009     | Tony Clark       | ERRG seed #8    |
| E20c.2 - Housing Future | C2C6B6        | 12/11/2009     | Andrew Caldwell  | ERRG seed #10   |
| E20c.2 - Housing Future | C2C6B8        | 12/10/2009     | Jack Kristensen  | ERRG #7         |
| E20c.2 - Housing Future | C2C6C5        | 12/18/2009     | Tony Clark       | ERRG #11        |
| E20c.2 - Housing Future | C2C6C9        | 12/10/2009     | Jack Kristensen  | ERRG #6         |
| E20c.2 - Housing Future | C2C6D9        | 12/21/2009     | Matthew Lauchner | ERRG #5         |
| E20c.2 - Housing Future | C2C6E3        | 12/22/2009     | Bill Raash       | errg qa seed 12 |
| E20c.2 - Housing Future | C2C6E5        | 12/21/2009     | Bill Raash       | ERRG #13        |
| E20c.2 - Housing Future | C2C6F9        | 12/23/2009     | Tony Clark       | ERRG #4         |
| E20c.2 - Housing Future | C2C6G0        | 12/17/2009     | Jack Kristensen  | ERRG #3         |
| E20c.2 - Housing Future | C2C6G8        | 12/16/2009     | Matthew Lauchner | errg seed 14    |
| E20c.2 - Housing Future | C2C6I7_E20c.2 | 12/30/2009     | Tony Clark       | erg seed 15     |
| E20c.2 - Housing Future | C2C7G1        | 10/21/2009     | Andrew Caldwell  | errg seed 2     |
| E20c.2 - Housing Future | C2C7G2        | 10/21/2009     | Andrew Caldwell  | errg seed 1     |

### 1. Purpose

#### 1.1. OVERVIEW OF UXO SOPS

The series of Unexploded Ordnance (UXO) Standard Operation Procedures (SOPs) provide direction for and are applicable to the Munitions and Explosives of Concern (MEC) services provided by Engineering/Remediation Resources Group, Inc. (ERRG) and cover the breadth of the performance and verification of ERRG UXO services.

These policies and procedures are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with Work Plans (WP), other ERRG SOPs, the ERRG Accident Prevention Plan (APP), applicable Federal, State, local regulations, and contract restrictions and guidance.

#### 1.2. PURPOSE OF THIS SOP

The QA Blind Seed Program is a QA process in which QA personnel strategically emplace inert UXO items or simulant items within the project production area to test and validate the MEC operations detection process. The validity of blind seeding as a QA tool is based on assumptions that seed items will accurately mimic actual MEC items expected to be found in the production area. If the UXO team detects the blind seeds, QA personnel determine the MEC operations procedures are working as planned. If the UXO teams fail to find a blind seed, the detection process is either inadequate or being implemented inadequately. Blind seeding should be planned, implemented, a documented and controlled by the ERRG QA Manager.

### 2. Scope

This procedure applies to all instances where the responsibilities of ERRG QA Specialist are charged with the emplacement of QA or QC blind seeding on MEC Intrusive projects.

### 3. References

- ERRG Health and Safety Program;
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- Site Specific Health and Safety Plan;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- DOD 4145.26 M, Contractors' Safety Manual for Ammunition and Explosives;
- DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards;
- DOD 4160.21-M, Defense Reutilization and Marketing Manual;



## QA/QC Blind Seeding

- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications;

### 4. Definitions

**Discarded Military Munitions (DMM).** - Military munitions that have been abandoned without proper disposal or have been removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. §2710(e) (2)).

**Exclusion Zone** (EZ) – A zone in which unauthorized personnel are not allowed to be present during MEC clearance or disposal activities.

**Fuzes.** - Devices that initiate the detonation sequence in munitions. Fuzes are typically associated with munitions (e.g., mortars and bombs), but they are occasionally found separately. They may contain a charge large enough to cause injury. Magnetic and proximity fuzes are the most sensitive and, depending on other factors (e.g., fuze location and arming), greatly influence the likelihood of detonation. When separated from the munitions, a fuze may not look like an explosive munitions item.

The terms fuse and fuze mean different things. For this SOP, a fuze is a mechanical or electrical device with explosive or non-explosive components designed to initiate a train of fire or detonation in ordnance (e.g., hand grenade). A fuse is a cord of readily combustible material that can be lit at one end to carry a flame along the length of the fuse to detonate an explosive at the other end (e.g., firecracker).

**Military Munitions.** - Ammunition products and components produced for or used by the armed forces for national defense and security. The term military munitions include ammunition products or components under the control of the Department of Defense, the U.S. Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives; pyrotechnics; chemical and riot control agents; smokes and incendiaries; bulk explosives; chemical agents; chemical munitions; rockets; guided and ballistic missiles; bombs; warheads; mortar rounds; artillery ammunition; small arms ammunition; grenades; mines; torpedoes; depth charges; cluster munitions and dispensers; demolition charges; and devices and components thereof.

Military munitions do not include wholly inert items, improvised explosive devices, or nuclear weapons, nuclear devices, or nuclear components. However, military munitions do include non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. §2011 et seq.) have been completed. (10 U.S.C. §101(e)(4))



**Minimum Separation Distance (MSD)** – The minimum separation distance (MSD) is the minimum safe distance for non-essential personnel to be present during UXO Operations. Generally speaking, the maximum horizontal fragmentation distance is to be used for all unexploded ordnance (UXO) items as the MSD for all non-essential personnel for both intentional and unintentional detonations.

**Munitions Constituents (MC).** - Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials. MC also includes emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. §2710(e)(3)) Note: Munitions constituents are MEC when explosive compounds of the munitions, such as TNT, RDX, and HMX, are in sufficient concentration as to pose an explosive hazard. This situation arises when concentration levels are 10 percent or more. Non-explosive munitions constituents and explosive concentrations less than 10 percent are not considered MEC.

**Munitions and Explosives of Concern (MEC).** - Specific categories of military munitions that may pose unique explosive risks, including:

- unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5);
- discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or
- munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. (See "Munitions constituents")

**Munitions Response.** - Response actions—including investigation, removal actions, and remedial actions—to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.

**Unexploded Ordnance (UXO).** - Military munitions that:

- (a) have been primed, fuzed, armed, or otherwise prepared for action;
- (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and
- (c) remain unexploded whether by malfunction, design, or any other cause.

(10 U.S.C. §101(e)(5)(A) through (C)) P.L. 106-65, section 3031 (c)(5)(A), provides a more detailed description.

**UXO Operations** - UXO operations are defined as MEC identification; access procedures such as excavation, either by hand or using heavy equipment; handling of UXO, explosives or explosive items; or disposal, including movement, transportation, and final disposal of MEC.



### 5. Responsibilities

#### 5.1. PROCEDURE RESPONSIBILITY

The MEC Quality Assurance Manager is responsible for maintenance, management, and revision of this procedure. Questions, comments, or suggestions regarding this SOP should be sent to the MEC Operations Manager.

#### 5.2. PROJECT RESPONSIBILITY

ERRG QA Specialists performing this task, or any portion thereof, are responsible for meeting the requirements of this procedure. ERRG employees conducting technical review of task performance are also responsible for following appropriate portions of this SOP.

For those projects where the activities of this SOP are conducted, the UXO QA Specialist is responsible for ensuring that those activities are conducted in accordance with this and other appropriate procedures. Project participants are responsible for documenting information in sufficient detail to provide objective documentation that the requirements of this SOP have been met. Such documentation shall be retained as project records.

### 6. Procedure

#### 6.1. MEC AVOIDANCE AND SAFETY CONSIDERATIONS DURING QA SEED EMPLACEMENT

MEC Avoidance procedures specified and outlined in the ERRG MEC Avoidance SOP will be utilized during the emplacement of QA/QC seeds to ensure the safety of personnel involved in operations. This is a valid safety precaution as seeding operations are performed on sites with potential. QA/QC seeding operations will be under the supervision of UXO qualified personnel. Non-UXO trained personnel will not be allowed in the exclusion zone (EZ) or work zone unless accompanied by a UXO Technician. During operations, ERRG personnel will strictly adhere to ERRG's Corporate Health and Safety Plan and Site Specific Health and Safety Plan and the following general safety practices:

- Operations will be conducted only during daylight hours;
- Access to operating areas will be limited to only those personnel necessary to accomplish the specific operation;
- UXO will not be handled during avoidance operations, personnel will be directed away/around from the item;
- During UXO operations the minimum separation distance (MSD) between UXO and non-UXO operations is the fragmentation distance of the munition with the greatest fragmentation distance (MGFD), as stated in the Work Plan. Personnel remaining on-site will be limited to those personnel needed to safely and efficiently prepare the item/s for destruction.);
- Non UXO technicians will receive initial ordnance recognition and safety training prior to beginning operations and will be escorted by qualified UXO personnel at all times;



## QA/QC Blind Seeding

- All personnel will attend the daily safety briefing (tailgate safety briefing) prior to entering the operating area;
- Anyone can stop operations for an unsafe act or situation;
- Safety violations and/or unsafe acts will be immediately reported to the UXO Safety Officer (UXOSO);
- Failure to comply with safety rules/procedures may result in termination of employment.

#### 6.2. BLIND SEED EMPLACEMENT PROCEDURES

Prior to excavating for the purpose of subsurface seed placement a magnetometer will be utilized to ensure the excavation locations are free of MEC or MPPEH. This will prevent accidental detonation of buried MEC. The immediate area must be clear of metallic anomalies to ensure the intended detection of the blind seed is unimpeded. The procedures used after clearance with a magnetometer to emplace blind seeds are as follows:

- Ensure the seed item is marked with the correct ERRG seed identification number.
- Excavate the intended seed location to the predetermined depth, record depth utilizing the attached QA Seed Report.
- Emplace the blind seed and record burial data on the QA Seed Report as follows:
  - Place and record the blind seed item at depth with center mass of the item at the intended maximum depth.
  - Arrange and record the blind seed in the intended bearing and attitude. A picture of the item will then be taken.
- Once the blind seed has been emplaced and all data recorded, the item's location coordinates will be recorded on the QA Seed Report after being captured utilizing one of the following procedures, procedures are listed in order of preference priority:
  - When available an RTK GPS unit will be utilized to record the coordinates of the item.
  - When an RTK GPS is not available a handheld GPS may be utilized.
  - Measuring tapes used in conjunction with existing grid stakes and/or reacquired anomaly flags.
- The excavation will be backfilled with incremental amounts of soils, between each increment the backfill soils will be tamped to ensure optimum soil density.

#### 6.3. CONFIDENTIALITY PROCEDURES

The confidentiality of the blind seed location coordinates is necessary to maintain the validity and effectiveness of the QA/QC blind seeding program. To maintain confidentiality the coordinate file within the GPS unit utilized in the blind seed emplacements will be erased or cleared after the coordinates have been transferred to the QA Seed Report. If possible a plot map may be generated plotting the blind seed



## QA/QC Blind Seeding

locations. The QA Seed Report and plot map, if generated, will be filed and secured by the ERRG QA Manager in such a way as it will not be available to project personnel. Once a blind seed has been discovered during MEC Intrusive operations the QA Manager will compare the coordinates provided by the UXOQC and the coordinated recorded on the QA Seed Report. Once the blind seed has been verified as a blind seed the QA Manager will report the blind seed as discovered.

### 7. Forms

QA Seed Report.



## Final

# Independent Third-Party Quality Assurance Work Summary Report for Munitions and Explosives of Concern Activities at Parker Flats Work Areas 4, 5, 6 & 7 Former Fort Ord Facility, Monterey, California

April 2011

28-006



Fort Ord Reuse Authority 100 12th Street, Building 2880 Marina, California 93993

Prepared by:



4585 Pacheco Boulevard, Suite 200 Martinez, California 94553 (925)969-0750

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# **Acronyms and Abbreviations**

| AOC<br>Army              | Administrative Order on Consent<br>United States Army   |
|--------------------------|---|
| DGM<br>DQOs              | digital geophysical mapping<br>data quality objectives  |
| ERRG<br>ESCA             | Engineering/Remediation Resources Group, Inc.<br>Environmental Services Cooperative Agreement                           |
| FORA                     | Fort Ord Reuse Authority  |
| GPS                      | global positioning system   |
| MEC                      | munitions and explosives of concern   |
| QA<br>QC<br>QAOP<br>QASP | quality assurance<br>quality control<br>Quality Assurance Oversight Professional<br>Quality Assurance Surveillance Plan |
| RI/FS                    | remediation investigation/feasibility study   |
| SOP                      | Standard Operating Procedure  |
| UXO                      | unexploded ordnance   |
| Weston                   | Weston Solutions, Inc.  |

# Section 1. Introduction

In spring 2005, the U.S. Army (Army) and the Fort Ord Reuse Authority (FORA) entered into negotiations to execute an Army-funded Environmental Services Cooperative Agreement (ESCA) leading to the transfer of 3,340 acres of the former Fort Ord prior to regulatory environmental sign-off. In early 2007, the Army awarded FORA a grant to perform munitions cleanup on the ESCA parcels. FORA also entered into an Administrative Order on Consent (AOC) with the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control. The AOC defined conditions under which FORA assumes responsibility for the Army's remediation of the ESCA parcels. To complete the AOC-defined work, FORA entered into a Remediation Services Agreement with LFR to provide services to remove potential munitions and explosives of concern (MEC) from the ESCA parcels. LFR, Inc. partnered with Weston Solutions, Inc. (Weston), who performed the actual MEC removal services. FORA, having the responsibility for management and quality of the ESCA remediation program, developed a Quality Assurance Surveillance Plan (QASP) (FORA, 2009). FORA contracted Engineering/Remediation Resources Group, Inc. (ERRG) as an independent third-party Quality Assurance Oversight Professional (QAOP) to implement the QASP.

ERRG implemented their quality assurance (QA) efforts in support of the remedial investigation/feasibility study (RI/FS) for the Parker Flats Areas 1 through 7 and habitat trails in compliance with the QASP to satisfy regulatory agency concerns. It is recognized that a MEC removal action may not successfully acquire and recover all MEC at the Parker Flats Areas 1 through 7 and habitat trails. The regulatory agencies have expressed concern regarding the residual risk that remains after MEC removals have taken place, particularly in areas that are slated for residential development (i.e., unrestricted land use). The effort is also intended to satisfy the requirements of the ESCA for the Parker Flats RI/FS.

# Section 2. Weston Quality Assurance Efforts

Weston developed a QA and quality control (QC) project plan to provide unbiased evidence of the quality of the data acquired and decisions made during the MEC removals, as evaluated against the measurement performance criteria described in the Final Group 1 RI/FS Work Plan, Volume 2 (LFR, Inc., Weston, and Westcliffe Engineers Inc., 2008). The measurement performance criteria established are called data quality objectives (DQOs). The primary methods used to provide evidence of compliance with DQOs are:

- Prequalification of policies and procedures
- Acceptable performance on test grids
- Auditing of field activities
- Acceptance sampling of completed work

The FORA ESCA Remediation Program is committed to using the best available (and appropriate) detection technology for locating subsurface MEC as established by the Ordnance Detection and Discrimination Study and subsequent projects (Parsons Corporation, 2002). Digital geophysical mapping (DGM) was the primary technology used to locate subsurface MEC. However, if physical impediments were encountered that prevented the use of DGM, manual analog detection technologies were used.

The evaluation of MEC removal was accomplished through auditing. Two methods of auditing were used: performance and procedural. Performance audits were accomplished by burying a MEC simulant within the project boundaries (a procedure known as "blind seeding"). The system performance was evaluated based on whether the MEC simulant was located and recovered. Procedural audits were accomplished by checking the field operations against the policies and procedures in place.

Blind seed items were placed within areas investigated. The Unexploded Ordnance (UXO) Quality Control Specialist, in consultation with the Remediation Project Manager, selected the locations of the seed items. Seeds were located using a survey-grade global positioning system (GPS) or equivalent within DGM grids. The blind seeds consisted of equivalent MEC simulants buried no deeper than the depth interval at which the geophysical instrument used had a 100 percent possibility of detection. The locations of the seed items were not provided to the other project personnel. QC and QA personnel reviewed the DGM data against the seed locations. Blind seed items were also placed in near-surface investigation area grids as a quality indicator.

ERRG's continuous review of the Weston team's implementation of the project QC/QA Plan resulted in no deficiencies noted in the removal of MEC from the Parker Flats Areas 1 through 7 and habitat trails. Field inspection reports are located in Appendix A.

# Section 3. FORA Quality Assurance Efforts

FORA developed a QASP (FORA, 2009) and contracted ERRG as an independent third-party QAOP to implement the QASP. The QASP addresses specific requirements of the Comprehensive Environmental Response, Compensation, and Liability Act pursuant to the terms and conditions of the ESCA Remediation Program and site-specific work plans governing the removal of MEC at the ESCA parcels. The QASP objectives are to:

- Set forth procedures and guidelines that the independent third-party QAOP applies to monitor and evaluate the quality and safety of the fieldwork and related documentation.
- Outline procedures for working with the LFR and Weston to monitor their QC/QA program.
- Outline procedures for correcting deficiencies.

The surveillance methods used by the QAOP included:

- 100 Percent Inspection At the completion of key milestones, performance was evaluated through 100 percent inspection (e.g., document review).
- Periodic Progress Inspection Periodic inspections may be conducted to evaluate progress toward and/or completion of key milestones and deliverables.
- Performance Metrics Two categories, quantitative and qualitative, were established. Tasks that could be physically measured or evaluated were in the quantitative category, while tasks that were more subjective were in the qualitative category. Qualitative assessments and observations as observed by the QAOP were entered in the comments block of the QA Report (Appendix A).

The QAOP evaluated Weston's program quality performance through the following methods:

- Review of QC documentation and activities
- Qualitative review of QC data for instrument functionality checks
- Qualitative review of QC root causes failure analyses
- Observe adherence to the approved explosive safety submissions
- Observe work plan implementation and adherence
- Observe field activities
- Provide additional independent third-party blind seeding of DGM areas and perform dig sheet review for detection and recovery of blind seed items
- Review of MEC waste management documentation

# Section 4. Digital Geophysical Mapping Quality Assurance Procedures

ERRG partnered with InDepth Corporation to provide to provide QA of DGM activities. Mr. Brian Hecker, a registered California Geophysicist, of InDepth Corporation, and ERRG observed the field QC procedures and activities performed by Weston. Weston collected site-specific data to comprehensively analyze the entire digital geophysical survey including data acquisition, processing, and interpretation. A seeding program was implemented in accordance with the QASP (FORA, 2009). The following digital geophysical activities were monitored:

- Operator performance
- Equipment performance
- Operator and equipment procedures
- UXO detection to depths of concern
- Removal of UXO of concern

The following subsections discuss monitoring of operator performance, acquisition of digital field data, and the blind seeding program.

### 4.1. OPERATOR PERFORMANCE

The QA Geophysicist evaluated Weston's geophysical instrument operators by observing their instrument operation, data acquisition, and reacquisition procedures. Geophysical data processors were evaluated by analyzing the quality of the data processing, as shown in the processed data files and the target selection and interpretation results listed in the dig sheets. Appendix B contains detailed results of the operator performance auditing.

### 4.2. DIGITAL FIELD DATA ACQUISITION

The QA Geophysicist evaluated the acquired and processed data. Data that indicated any of the following issues were noted:

- Data gaps along survey lines
- Unreasonable data (e.g., systematic "spikes" or noise)
- Data incongruity across survey grids

- Inadequate data density along survey traverse
- Lack of accurate, precise locations; survey line orientation
- Inadequate and incomplete site survey coverage
- Missing, incomplete, or noncompliant instrument standardization checks

At the completion of data evaluation activities, the QA Geophysicist prepared a list of desired geophysical QA picks for ERRG to investigate for further verification. An ERRG MEC QA Specialist performed the verification digs on all selected geophysical QA picks on April 13 and 14, 2010. Appendix B contains detailed results of digital field data acquisition and processing and the dig results of the geophysical QA picks.

### 4.3. BLIND SEEDING PROGRAM

ERRG implemented a blind seeding program to evaluate Weston's capabilities to detect specific MEC at the highest levels of quality and to evaluate the spatial survey coverage of the investigation area. The blind seeds were industry-accepted MEC simulants consisting of 1-inch by 4-inch pipe. Each simulant was identified and inventoried with a serial number for identification after recovery.

QA blind seeding actions were performed in accordance with the ERRG QA Blind Seed Standard Operating Procedure (SOP) (Appendix C). As specified in the ERRG Blind Seed SOP, at the time of emplacement, the blind seed's depth, bearing, attitude, and locations were recorded, documented, and tracked by the QA Specialist to ensure their confidentiality and to maintain the validity of QA seed objectives. The blind seed placement provided a method to check survey detection ability and the ability of the UXO team to detect anomalies.

The QA seed tracking documents, provided in Appendix D, contain seed numbers and location information, such as GPS coordinates. The ERRG QA Manager strictly maintained the QA seed tracking documents to ensure confidentiality of the blind seeds until their discovery. Weston recorded the discovery of blind seeds in the Data Gap Seed Report, which was reviewed by the ERRG QA Manager to verify the discovered blind seed's location with the QA blind seed tracking documents. As verified by the ERRG QA Manager, Weston's discovery of all QA-emplaced blind seeds confirmed the capability of DGM to detect anomalies and that all anomalies were removed.

All blind seed items were found during MEC removal from the Parker Flats Areas 1 through 7 and habitat trails. The field reports in Appendix D detail the placement of the blind seeds. Appendix E provides tables summarizing Weston's reporting of the recovered seeds.

# Section 5. References

- Fort Ord Reuse Authority, 2009. "Quality Assurance Surveillance Program, ESCA Remediation Program." October.
- LFR, Inc., Weston Solutions, Inc., and Westcliffe Engineers, Inc., 2008. "Group 1 Remedial Investigation / Feasibility Study Work Plan, Volume 1 – Work Plan, Seaside Munitions Response Area and Parker Flats Munitions Response Area Phase II, Former Fort Ord, Monterey County, California." December 17.
- Parsons Corporation, 2002. "Final Ordnance Detection and Discrimination Study Report, Fort Ord, California." January 15.



# Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: 9-16-09  |  |
|--|--|
| Work Task (Milestone/Activity):                        | Parker Flats   |
| Survey Period:   | 9-08-09  |
| Method of Surveillance (Visual, D                      | ocument Review, Inspection, etc): Visual   |
| Observations Concerning the LFF                        | R Team's Performance   |
| Observations:  | un, EKKO MEC Quanty Assurance Professional.  |
| The purpose of this site visit/audit was to observe th | ne field UXO Teams conducting the investigation/clearance of the heavily contaminated polygons in the Parker |
| Flats Area. I observed the UXO Teams conducting        | polygon excavation and sifting in Area 3 and anomaly investigation in Area 4.                                |
|  |  |
| Corrective Action Required:                            | $\Box$ Yes $\boxtimes$ No  |
| Evaluation of LFR Team's Perform                       | mance During Surveillance Activities:  |
| Overall this process is an effective process that will | allow the LFR/Weston Team to effectively and efficiently clear the mass amount of metal debris and anomalies |
| from these polygon areas.                              |  |
| f. Atus  |  |



Date: 29 March, 2010

Weather Conditions: Cool Temperature: Low: <u>41</u> High: <u>65</u>

- 1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Vegetation removal operations in Work Area 6
  - Two dig teams conducting intrusive operations
  - One back hoe team.

### **Demo Operations:** N/A

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3.** CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - Buried 8 ERRG QA seeds and documented locations, Richard Ramirez and Frank Cota were available for the seeding action; see QA Seed Report.
  - Luis Observed Weston teams, two dig teams and one back hoe team.
  - Item recovered several empty grenade bodies and several small arm ammunition clips.
- 5. Work Day's Highlights:

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel:



# PICTURES



Luis emplacing QA Seed



# **EQUIPMENT STATUS**

| DISCRIPTION    | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|----------------|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt  | 1                 | 1             |                            |                   |
| b. Whites      | 1                 | 1             |                            |                   |
| c. Site Trucks | 2                 | 2             |                            |                   |
| d. Camera      | 1                 | 1             |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |
|                |                   |               |                            |                   |

fuis E. Fierro

ERRG QA Specialist



Date: 28 April, 2010

Weather Conditions: <u>Some rain/windy</u> Temperature: Low: <u>45</u> High: <u>58</u>

- 1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Two Surface Sweep Teams at Parker Flats MRA Phase 2, conducting intrusive operations, North Parker Flats (Ball Field) Areas E18.1.3 and E19a.1.
  - One Reacquisition Team
  - One EM61 Team.

**Demo Operations:** N/A

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
  - Observed QC conducting follow-up QC activities

## 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)

- QA observed Weston teams utilizing all required PPE.
- QA conducted an observation of dig techniques, observed excavations dug to depth and cleared.
- Observed items recovered: range debris; examples ammo can lid, M18 mask filter, aluminum cans, and several nails. Negative find on MEC during the QA observations.

## 5. Work Day's Highlights:

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel: N/A



# ERRG EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  |                   |               |                            | 1                 |
|  |                   |               |                            |                   |
|  |                   |               |                            |                   |
|  |                   |               |                            |                   |
|  |                   |               |                            |                   |
|  |                   |               |                            |                   |

his E. Fierro

ERRG QA Specialist

Francises M Ca

ERRG MEC Operations Manager



Date: 10 May, 2010

Weather Conditions: <u>Some Rain/Windy</u> Temperature: Low: <u>46</u> High: <u>59</u>

- **1. OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Parker Flats MRA Phase 2, Area 6, E18.1.3 operations conducted:
    - 1. Two MEC Teams conducting Intrusive operations
    - 2. One Back-Hoe Team

**Demo Operations:** *N*/*A* 

# 2. SUBCONTRACTOR ACTIVITIES: N/A

- 3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
  - (Assure performing contractor QC is in compliance with the Work Plan)
  - ERRG QA Specialist observed QC follow-up inspection operations.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams utilizing required PPE.
  - ERRG QA Specialist conducted an observation of dig techniques;
    - 1. Observed excavations dug to depth
    - 2. Excavations cleared of anomalies.
  - ERRG QA Specialist conducted an observation of the back-hoe team;
    - 1. Observed the back-hoe operator marked the intrusion area with the back hoe at the maximum extension.
    - 2. Observed safe dig practices with the back-hoe.
  - Items recovered during the QA observations:
    - 1. Range debris; examples metal wire, 55 gallon drums, nails, and metal stakes.
    - 2. Negative find on MEC during QA observations.
- 5. Work Day's Highlights:

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel: *N/A* 



# PICTURES



**Sweep Operations** 





**Back-Hoe Operations** 

## EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis E. Fierro

ERRG QA Specialist

Francises M Etc

ERRG MEC Operations Manager



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date: | 5/11/10 |  |
|-------|---------|--|
| Date. | 5/11/10 |  |

Work Task (Milestone/Activity): Parker Flats MRA Phase 2

Survey Period: 5/10/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

| Observations Concerning the LFR Team's Performance<br>Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.   |  |  |  |  |
|---|--|--|--|--|
| Observations:   |  |  |  |  |
| <ul> <li>Observations:</li> <li>ERRG QA Specialist observed Weston teams utilizing required PPE.</li> <li>ERRG QA Specialist conducted an observation of dig techniques; <ol> <li>Observed excavations dug to depth</li> <li>Excavations cleared of anomalies.</li> </ol> </li> <li>ERRG QA Specialist conducted an observation of the back-hoe team; <ol> <li>Observed the back-hoe operator marked the intrusion area with the back hoe at the maximum extension.</li> <li>Observed safe dig practices with the back-hoe.</li> </ol> </li> <li>Items recovered during the QA observations:</li> </ul> |  |  |  |  |
| 1. Range debris; examples metal wire, 55 gallon drums, nails, and metal stakes.<br>Negative find on MEC during QA observations.   |  |  |  |  |
|   |  |  |  |  |
| Corrective Action Required: Yes No  |  |  |  |  |
| Evaluation of LFR Team's Performance during Surveillance Activities:  |  |  |  |  |
| Evaluation Discussion:  |  |  |  |  |
| No deficiencies noted.  |  |  |  |  |
|   |  |  |  |  |



Date: 19 May, 2010

Weather Conditions: <u>Partly Cloudy/Windy</u> Temperature: Low: <u>50</u> High: <u>61</u>

- **1. OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Parker Flats MRA Phase 2, Area 6, Small Race Track operations conducted:
    - 1. Two MEC Teams conducting Intrusive operations
  - Area 6, E18.1.1 and E18.1.3:
    - 1. QC conducting follow-up QC activities

**Demo Operations:** *N/A* 

## 2. SUBCONTRACTOR ACTIVITIES: N/A

- 3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:
  - (Assure performing contractor QC is in compliance with the Work Plan)
  - Observed QC follow-up inspection operations.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams utilizing required PPE.
  - ERRG QA Specialist conducted an observation of dig techniques;
    - 1. Observed excavations dug to depth
    - 2. Excavations cleared of anomalies.
  - ERRG QA Specialist conducted an observation of the QC Operations;
    - 1. Observed the follow up investigations and inspections
    - 2. Observed safe dig practices
  - Items recovered during the QA observations:
    - 1. Range debris; examples steel wire, aluminum cans, nails, and metal stakes.
    - 2. Negative find on MEC during QA observations.

## 5. Work Day's Highlights:

**6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel: *N/A* 



# PICTURES









Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota





# EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis E. Fierro

ERRG QA Specialist

Thancises M Cat

ERRG MEC Operations Manager



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

| Date  | 5/20/10 |
|-------|---------|
| Date. | 3/20/10 |

Work Task (Milestone/Activity): Parker Flats MRA Phase 2

Survey Period: 5/19/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

Observations Concerning the LFR Team's Performance

| 0   |
|---|
| Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional. |
| Observations:   |
| • ERRG QA Specialist observed Weston teams utilizing required PPE.                          |
| • ERRG QA Specialist conducted an observation of dig techniques;                            |
| 1. Observed excavations dug to depth  |
| 2. Excavations cleared of anomalies.  |
| • ERRG QA Specialist conducted an observation of the QC Operations;                         |
| 1. Observed the follow up investigations and inspections                                    |
|   |

- 2. Observed safe dig practices
- Items recovered during the QA observations:

1. Range debris; examples steel wire, aluminum cans, nails, and metal stakes.

Negative find on MEC during QA observations.

| Corrective Action Required: | <b>Yes</b> | 🛛 No |
|-----------------------------|------------|------|
|-----------------------------|------------|------|

Evaluation of LFR Team's Performance during Surveillance Activities: Evaluation Discussion:

No deficiencies noted.



Date: 25 June, 2010

Weather Conditions: <u>Partly Cloudy</u> Temperature: Low: <u>51</u> High: <u>59</u>

- **1. OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Parker Flats MRA Phase 2, Parcel 5, E19a.1, Grid C2G8B0:
    - 1. MEC Teams Perform Mag and Dig Operations
    - 2. Back hoe operations

# SEE ATTACHED MAP FOR QA VISIT AREAS

### **Demo Operations:** *N/A*

## 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
  - Observed QC follow-up inspection operations.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations
  - ERRG QA Specialist observed Weston teams utilizing required PPE.
  - ERRG QA Specialist conducted an observation of Mag and Dig operations;
    - 1. Observed excavations dug to depth
    - 2. Excavations cleared of anomalies
    - 3. Observed proper lane control on grid
    - ERRG QA Specialist conducted an observation of Back Hoe Operations listed in section 1;
      - 1. Observed use of shaker during back hoe operations
      - 2. Back hoe operator marked exclusion area around back hoe boom extension for others to recognize the hazard areas
  - Items recovered during the QA observations:
    - 1. Range debris; examples aluminum cans, screws, washers.
    - 2. MD during QA observations: Expended grenade bodies, grenade fuzes and grenade spoons.
- 5. Work Day's Highlights:

•



6. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A* 



Picture 1: Team member sweeping lane during Mag and Dig Operations



Pictures 2: Picture showing lane control by sweep teams





Picture 3: Team member utilizing proper dig procedures



Picture 6: Back Hoe Operations performed with shaker in Parcel E19a.1



# EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

us E. Fierro

ERRG QA Specialist

Francises M Ca

ERRG MEC QA Manager





### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 6/28/10

Work Task (Milestone/Activity): Parker Flats MRA Phase 2, Parcel 5, E19a.1, Grid C2G8B0

Survey Period: 6/25/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

| Observations Concerning the LFR Team's Performance  |  |  |  |  |
|---|--|--|--|--|
| Observations:   |  |  |  |  |
| • ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations  |  |  |  |  |
| ERRG QA Specialist observed Weston teams utilizing required PPE.  |  |  |  |  |
| <ul> <li>ERRG QA Specialist conducted an observation of Mag and Dig operations;</li> <li>1. Observed excavations dug to depth</li> <li>2. Excavations cleared of anomalies</li> <li>3. Observed proper lane control on grid</li> <li>ERRG QA Specialist conducted an observation of Back Hoe Operations listed in section 1;</li> </ul> |  |  |  |  |
| <ol> <li>Observed use of shaker during back hoe operations</li> <li>Back hoe operator marked exclusion area around back hoe boom extension for others to recognize the hazard areas</li> </ol>  |  |  |  |  |
| • Items recovered during the QA observations:   |  |  |  |  |
| 1. Range debris; examples aluminum cans, screws, washers.<br>MD during QA observations: Expended grenade bodies, grenade fuzes and grenade spoons.  |  |  |  |  |
| Corrective Action Required: Yes No  |  |  |  |  |

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion: No deficiencies noted.



Date: 08 July, 2010

Weather Conditions: <u>Partly Cloudy</u> Temperature: Low: <u>53</u> High: <u>63</u>

- 1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)
  - Parker Flats MRA Phase 2, observe Weston Mag and Dig operations in Parcels 5 E19a.1, Grids C2G9C1 and Grid C2G9C5
  - ERRG QA Specialist conducts no less than 10% of production complete of the following grids in:
    - a. Parcel E18.1.3 Work area 6: C2G7E3, C2G7C3, C2F7J4, C2G7B5, C2G7D7, C2F7J7, C2G7A0, C2F8I2, C2G8B2, C2G8E2
    - b. Parcel E19a.1 Work Area 5: C2G8C4, C2G8B6, C2F8J5, C2F8J8, C2G8C9, C2G8A0, C2F8H9, C2F9I1

## SEE ATTACHED MAP FOR QA VISIT AREAS

### **Demo Operations:** *N*/*A*

## 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3.** CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan)
  - Observed QC follow-up inspection operations.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations
  - ERRG QA Specialist observed Weston teams utilizing required PPE.
  - ERRG QA Specialist conducted an observation of Mag and Dig operations;
    - 1. Observed excavations dug to depth
    - 2. Excavations cleared of anomalies
    - 3. Observed proper lane control on grid
  - ERRG QA Specialist conducted 10% inspections in the grids listed in section 1;
    - 1. No discrepancies found
  - Items recovered during the QA observations of Mag and Dig:
    - 1. Range debris; wire and nails, MEC found:
    - 2. MD during QA observations: Expended grenade bodies, grenades spoons, and slap flares.



**5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED:** List any instructions given by FORA/Client Personnel: *N/A* 



Picture 1: Grid C2G9C1; sweeping using rope for lane control



Pictures 2: Grid C2G9C1; picture showing lane coverage





Picture 3: Grid C2G9C5; team member checking hole after dig procedures



Picture 4: Grid C2G9C5; Team Leader QC of his team



### **EQUIPMENT STATUS**

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis Z. - Fierro

ERRG QA Specialist

Francises M Ct.

ERRG MEC QA Manager




#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 7/12/10

Work Task (Milestone/Activity):

Mag and dig observations in Parker Flats MRA Phase s, Parcel 5 E19a.1, grids C2G9C1 and C2G9C5. ERRG QA 10% inspections of the following grids in:

- a. Parcel E18.1.3 Work area 6: C2G7E3, C2G7C3, C2F7J4, C2G7B5, C2G7D7, C2F7J7, C2G7A0, C2F8I2, C2G8B2, C2G8E2
- b. Parcel E19a.1 Work Area 5: C2G8C4, C2G8B6, C2F8J5, C2F8J8, C2G8C9, C2G8A0, C2F8H9, C2F9I1

Survey Period:

7/08/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

| Observations Concerning the LFR Team's Performance  |
|---|
| Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.   |
| Observations:   |
| • ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations  |
| <ul> <li>ERRG QA Specialist observed Weston teams utilizing required PPE.</li> </ul>  |
| • ERRG QA Specialist conducted an observation of Mag and Dig operations in Parcels 5 E19a.1,  |
| Grids C2G9C1 and Grid C2G9C5;   |
| 1. Observed excavations dug to depth  |
| 2. Excavations cleared of anomalies   |
| 3. Observed proper lane control on grid   |
| <ul> <li>ERRG QA Specialist conducts no less than 10% of production complete of the following grids in:</li> <li>c. Parcel E18.1.3 Work area 6: C2G7E3, C2G7C3, C2F7J4, C2G7B5, C2G7D7, C2F7J7, C2G7A0, C2F8I2, C2G8B2, C2G8E2</li> </ul> |
| • Parcel E19a.1 Work Area 5: C2G8C4, C2G8B6, C2F8J5, C2F8J8, C2G8C9, C2G8A0, C2F8H9,  |
| C2F9I1  |
| No discrepancies found  |
| • Items recovered during the QA observations of Mag and Dig:  |
| 1. Range debris; wire and nails, MEC found:   |
| 2. MD during QA observations: Expended grenade bodies, grenades spoons, and slap flares.  |
|   |
|   |
|   |
|   |
| Corrective Action Required: $\Box$ Yes $\boxtimes$ No   |

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



Date: 20 July 2010

Weather Conditions: <u>Partly Cloudy</u> Temperature: Low: <u>52</u> High: <u>60</u>

1. **OPERATIONS PERFORMED TODAY:** (Indicate location and description of activity)

Parker Flats MRA Phase Two, Parcel E19a.1, Grid C2G9A4:

• Backhoe Team performs dig operations

Parker Flats MRA Phase Two, Parcel E19a.1, Grid C2G8G9:

• EM 61 team performs QC 2 inspections

Parker Flats MRA Phase Two, Parcel E19a.1, Grid C2F9I4:

• Mag and dig operations

#### SEE ATTACHED MAP FOR QA VISIT AREAS

#### **Demo Operations:** *N*/*A*

#### 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
  - Observed QC follow-up inspection operations.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist conducted an observation of Backhoe dig operations in Grid C2G9A4;
    - 1. Backhoe operator marked the intrusion area with the backhoe boom at full extension.
    - 2. Excavations cleared of anomalies
    - 3. Debris found- fence posts and pipe
  - ERRG QA Specialist observed EM 61 team perform QC 2 inspections in Grid C2G8G9;
    - 1. No discrepancies found
  - Items noted during the QA observations of Mag and Dig in Grid C2F9I4:
    - 1. Lane control utilized during operations
    - 2. Proper and safe dig techniques used
    - 3. Excavations cleared of anomalies
    - 4. Range debris recovered; wire and nails,
    - 5. MD recovered during QA observations: Expended grenade fuze.



# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Picture 1: Grid C2F9I4; sweeping using rope for lane control



Pictures 2: Grid C2F9I4; picture showing anomaly excavation





Picture 3: Grid C2G8G9; EM 61 team performs QC 2 inspections

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis Z. Fierro ERRG QA Specialist

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 7/23/10

Work Task (Milestone/Activity): Backhoe operations in Parker Flats MRA Phase Two, Parcel E19a.1, Grid C2G9A4 EM 61 QC 2 Inspections in Parker Flats MRA Phase Two, Parcel E19a.1, Grid C2G8G9 Mag and dig observations in Parker Flats MRA Phase Two, Parcel E19a.1, Grid.

Survey Period: 7/20/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist conducted an observation of Backhoe dig operations in Grid C2G9A4;
  - 1. Backhoe operator marked the intrusion area with the backhoe boom at full extension.
    - 2. Excavations cleared of anomalies
    - 3. Debris found fence posts and pipe
- ERRG QA Specialist observed EM 61 team perform QC 2 inspections in Grid C2G8G9;
   1. No discrepancies found
- Items noted during the QA observations of Mag and Dig in Grid C2F9I4:
  - 1. Lane control utilized during operations
  - 2. Proper and safe dig techniques used
  - 3. Excavations cleared of anomalies
  - 4. Range debris recovered; wire and nails,
  - 5. MD recovered during QA observations: Expended grenade fuze.

Corrective Action Required: Yes

🛛 No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.





#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 7/23/10

Work Task (Milestone/Activity): Backhoe operations in Parker Flats MRA Phase 2, Parcel E19a.1, Grid C2G9A4 EM 61 QC 2 Inspections in Parker Flats MRA Phase 2, Parcel E19a.1, Grid C2G8G9 Mag and dig observations in Parker Flats MRA Phase 2, Parcel E19a.1, Grid.

Survey Period: 7/20/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations

Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist conducted an observation of Backhoe dig operations in Grid C2G9A4;
  - 1. Backhoe operator marked the intrusion area with the backhoe boom at full extension.
    - 2. Excavations cleared of anomalies
    - 3. Debris found fence posts and pipe
- ERRG QA Specialist observed EM 61 team perform QC 2 inspections in Grid C2G8G9;
   1. No discrepancies found
- Items noted during the QA observations of Mag and Dig in Grid C2F9I4:
  - 1. Lane control utilized during operations
  - 2. Proper and safe dig techniques used
  - 3. Excavations cleared of anomalies
  - 4. Range debris recovered; wire and nails,
  - 5. MD recovered during QA observations: Expended grenade fuze.

Corrective Action Required: Yes

🛛 No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion:

No deficiencies noted.



Date: 22 Sep 2010

Weather Conditions: <u>Clear and warm</u> Temperature: Low: <u>52</u> High: <u>64</u>

- 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (Indicate location and description of activity)
  - QA Observation of Weston team performing Mag and Dig operations in Parker Flats MRA Phase 2, Work Area 7, Parcel E18.1.1, Grid H2E6A8
  - ERRG QA Blind seeding Operations performed in Parker Flats Work Area 7, Parcel E18.1.1, grids C2D6B8, C2D7B2, C2D6C8, C2D6C9, C2D7C3, C2D6D9, C2D6D0 and C2D7D1(QA Seed Report filed)
  - Weston QC and ERRG QA operations in Parker Flats MRA Phase 2, Work Area 5 Parcel E19a1, Work area 5 grids C2G9E9, C2G9B9, C2GOC2, C2GOA2, C2G9H8, C2F9J9, C2FOH2, C2F9I8

#### SEE ATTACHED MAP FOR QA VISIT AREAS Demo Operations: N/A

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3.** CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist observed Mag and Dig operations in Work Area 7, Grid H2E6A8;
    - 1. Safe work practiced observed
    - 2. Lane control utilized
    - 3. Proper and safe dig techniques used
    - 4. Excavations cleared of anomalies
    - 5. Range debris recovered: nails and wire
    - 6. Munitions Related Debris found: None
    - 7. MEC found: None
  - ERRG QA inspected 10% of the following grids, negative MEC find, Parcel E19a1, Work area 5, grids C2G9E9, C2G9B9, C2GOC2, C2GOA2, C2G9H8, C2F9J9, C2FOH2, and C2F9I8
    - 1. MEC found: None
    - 2. No discrepancies noted



• ERRG QA Blind seeding Operations performed in E18.1.1, grids C2D6B8, C2D7B2, C2D6C8, C2D6C9, C2D7C3, C2D6D9, C2D6D0 and C2D7D1(QA Seed Report filed)

# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Picture 1: Work Area 7, Parcel E18.1.1, Grid H2E6A8; Mag and Dig with lane control



Picture 2: Work Area 7, Parcel E18.1.1, Grid H2E6A8; ERRG QA observing magnetometer use



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 11                |               |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis E. Fierro ERRG QA Specialist

ERRG QA Specialist

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 9/27/10 Work Task (Milestone/Activity): QC/QA Inspection Operations in Parker Flats MRA Phase 2, Parcel E19 a1, Work Area 5 in grids C2G9E9, C2G9B9, C2GOC2, C2GOA2, C2G9H8, C2F9J9, C2FOH2, and C2F9I8.

Mag and Dig Operations in Work Area 7, Parcel E18.1.1, grid H2E6A8. Survey Period: 9/22/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations, Inspections and Blind Seeding

Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Mag and Dig operations in Parker Flats Work Area 7, Parcel E18.1.1, Grid H2E6A8;
  - 1. Safe work practiced observed
  - 2. Lane control utilized
  - 3. Proper and safe dig techniques used
  - 4. Excavations cleared of anomalies
  - 5. Range debris recovered: nails and wire
  - 6. Munitions Related Debris found: None
  - 7. MEC found: None
- ERRG QA inspected 10% of the following grids, negative MEC find, Parcel E19a1, Work area 5, grids C2G9E9, C2G9B9, C2GOC2, C2GOA2, C2G9H8, C2F9J9, C2FOH2, and C2F9I8
  - 1. MEC found: None
  - 2. No discrepancies noted

ERRG QA Blind seeding Operations performed in E18.1.1, grids C2D6B8, C2D7B2, C2D6C8, C2D6C9, C2D7C3, C2D6D9, C2D6D0 and C2D7D1(QA Seed Report filed)

Corrective Action Required: Yes No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion: No deficiencies noted.

1





Date: 13 and 14 Oct 2010

Weather Conditions: <u>Clear and warm</u> Temperature: Low: <u>62</u> High: <u>75</u>

#### 1. OPERATIONS PERFORMED/OBSERVED TODAY: (Indicate location and description of activity)

- On 13<sup>th</sup> and 14<sup>th</sup> of October ERRG QA Specialists Frank Cota and German Peña conducted investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1, grids C2F6I0, and C2G6E7
- On 14<sup>th</sup> October QA Observation of Weston personnel team performing Trail Investigation and fire break vegetation removal operations in Future East Garrison MRA, Parcel E11b.7.1.1.

#### SEE ATTACHED MAP FOR QA VISIT AREAS Demo Operations: N/A

#### 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialists conducted intrusive investigations of Geo QA reviewed geophysical data picks in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1 grids C2F6I0, and C2G6E7. 157 targets were investigated with all results recorded for return to Geo QA InDepth to evaluate.
  - ERRG QA Specialists observed trail investigation operations on 14 October in Future East Garrison MRA, Parcel E11b.7.1.1;
    - 1. Safe work practiced observed
    - 2. Utilization of required PPE observed
    - 3. Spacing control utilized
    - 4. Range debris recovered: non-munitions related scrap
    - 5. Munitions Related Debris found: None
    - 6. MEC found: None
    - 7. No discrepancies noted
  - ERRG QA Specialists observed vegetation removal operations conducted on firebreaks on 14 October in Future East Garrison MRA, Parcel E11b.7.1.1;
    - 1. Safe work practiced observed Utilization of required PPE observed
    - 2. UXO Escort on location during operations
    - 3. No discrepancies noted



# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Picture 1: Future East Garrison MRA E11b.7.1.1 Trail Investigation



Picture 2: Future East Garrison MRA E11b.7.1.1 Fire Break Vegetation Removal





Pictures 3 and 4: Future East Garrison MRA E11b.7.1.1 Fire Break and trail



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

ERRG QA Specialist

Francises M Ctu

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 10/13 and 14/10

Work Task (Milestone/Activity):

- On 13<sup>th</sup> and 14<sup>th</sup> of October ERRG QA Specialists Frank Cota and German Peña conducted investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1, grids C2F6I0, and C2G6E7
- On 14<sup>th</sup> October QA Observation of Weston personnel team performing Trail Investigation and fire break vegetation removal operations in Future East Garrison MRA, Parcel E11b.7.1.1.

Survey Period: 10/22/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations, Inspections and QA Intrusive Investigations

Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional.

Observations:

- ERRG QA Specialists conducted intrusive investigations of Geo QA reviewed geophysical data picks in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1 grids C2F6I0, and C2G6E7. 157 targets were investigated with all results recorded for return to Geo QA InDepth to evaluate.
- ERRG QA Specialists observed trail investigation operations on 14 October in Future East Garrison MRA, Parcel E11b.7.1.1;
  - 1. Safe work practiced observed
  - 2. Utilization of required PPE observed
  - 3. Spacing control utilized
  - 4. Range debris recovered: non-munitions related scrap
  - 5. Munitions Related Debris found: None
  - 6. MEC found: None
  - 7. No discrepancies noted
- ERRG QA Specialists observed vegetation removal operations conducted on firebreaks on 14 October in Future East Garrison MRA, Parcel E11b.7.1.1;
  - 1. Safe work practiced observed Utilization of required PPE observed
  - 2. UXO Escort on location during operations
  - 3. No discrepancies noted

Corrective Action Required: Yes No

Evaluation of LFR Team's Performance during Surveillance Activities:

No deficiencies noted.





Date: 21 Oct 2010

Weather Conditions: <u>Clear and warm</u> Temperature: Low: <u>55</u> High: <u>65</u>

#### 1. OPERATIONS PERFORMED/OBSERVED TODAY: (Indicate location and description of activity)

• ERRG QA Specialists Luis Fierro and Steve Alberico conducted investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1, grids C2G8H1, and C2G8G4. These same operations were also conducted in Parker Flats MRA Phase 2, Work Area 5 Parcel E19a.1, grids C2G8F8 and C2G9G2

#### SEE ATTACHED MAP FOR QA VISIT AREAS Demo Operations: N/A

#### 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialists conducted intrusive investigations of Geo QA reviewed geophysical data and QA selected targets in Parker Flats MRA Phase 2, Work Area 6 Parcel E18.1.1, grids C2G8H1, and Parker Flats MRA Phase 2, Work Area 5 Parcel E19a.1, grids C2G8F8 and C2G9G2. 74 targets were investigated with all results recorded for return to Geo QA InDepth to evaluate.

5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A* 



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

Juis E. Jierro ERRG QA Specialist

ERRG QA Specialist

Francises M Cat

ERRG MEC QA Manager



Date: 28 Oct 2010

### Weather Conditions: <u>Clear and warm</u> Temperature: Low: <u>49</u> High: <u>68</u>

#### 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (List location & description of activity)

- ERRG QA Specialists Luis Fierro and Steve Alberico conducte d and completed investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 4 Parcel E18.1.2, grids C2C7G0, C2C7G7 and Parcel E18 .1.1, grid C2D6A5. Thes e same operations were also conducted in Parker Flats MRA Phas e 2, Work Area 5 Parcel E19a.1, grids C2G9G2, C2G8F8 and C2G0I1
- Weston team providing UXO escort for vege tation removal operations in Parcel E11b.7.1.1, Future East Garrison MRA
- Weston team performing Mag and Dig operations in Parcel E11b.7.1.1, Future E ast Garrison MRA

#### SEE ATTACHED MAP FOR QA VISIT AREAS Demo Operations: N/A

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist observed Weston escort operations for vegetation removal operations and Mag and Dig operations in Parcel E11b.7.1.1, Future East Garrison MRA;
    - 1. Safe work practiced observed
    - 2. Lane control utilized
    - 3. Proper and safe dig techniques used
    - 4. Excavations cleared of anomalies
    - 5. Range debris recovered: nails and wire
    - 6. Munitions Related Debris found: Practice grenade furze at control point 7/8
    - 7. MEC found: Stokes Mortar, in control points 37/38
  - ERRG QA Specialists Luis Fierro and Steve Alberico conducte d and completed investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 4 Parcel E18.1.2, grids C2C7G0, C2C7G7 and Parcel E18.1.1, grid C2D6A5. And in Work Area 5 Parcel E19a.1, grids C2G9G2,



C2G8F8 and C2G0I1. 22 targets were investigated with all results recorded for return to Geo QA InDepth to evaluate.

# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Picture 1: P. Flats MRA Phase 2, Work Area 4 Parcel E18.1.2; ERRG Conducting QA Investigations



Picture 2: Parcel E11b.7.1.1, Future East Garrison MRA; QA observing magnetometer use





Picture 3: Parcel E11b.7.1.1, Future East Garrison MRA; QA observing Mag & Dig Operations



Picture 4: Parcel E11b.7.1.1, Future East Garrison MRA; Stokes Mortar found at Control Point 37/38



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

is E. Fierro

ERRG QA Specialist

Trancises In the

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 11/01/10

Work Task (Milestone/Activity):

- ERRG QA Specialists conducted investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 4 Parcel E18.1.2, grids C2C7G0, C2C7G7 and Parcel E18.1.1, grid C2D6A5, and in Parker Flats MRA Phase 2, Work Area 5 Parcel E19a.1, grids C2G9G2, C2G8F8 and C2G0I1
- Weston team providing UXO escort for vegetation removal operations in Parcel E11b.7.1.1, Future East Garrison MRA
- Weston team performing Mag and Dig operations in Parcel E11b.7.1.1, Future East Garrison MRA.

Survey Period: 10/28/10

Method of Surveillance (Visual, Document Review, Inspection, etc): Observations, Inspections and QA Intrusive Investigations

Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro and Steve Alberico, ERRG MEC Quality Assurance Professionals

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston escort operations for vegetation removal operations and Mag and Dig operations in Parcel E11b.7.1.1, Future East Garrison MRA;
  - 1. Safe work practiced observed
  - 2. Lane control utilized
  - 3. Proper and safe dig techniques used
  - 4. Excavations cleared of anomalies
  - 5. Range debris recovered: nails and wire
  - 6. Munitions Related Debris found: Practice grenade furze at control point 7/8
  - 7. MEC found: Stokes Mortar, in control points 37/38
- ERRG QA Specialists Luis Fierro and Steve Alberico conducted and completed investigation of Geo QA picks in Parker Flats MRA Phase 2, Work Area 4 Parcel E18.1.2, grids C2C7G0, C2C7G7 and Parcel E18.1.1, grid C2D6A5. And in Work Area 5 Parcel E19a.1, grids C2G9G2, C2G8F8 and C2G0I1. 22 targets were investigated with all results recorded for return to Geo QA InDepth to evaluate.

Corrective Action Required:  $\Box$  Yes  $\boxtimes$  No

Evaluation of LFR Team's Performance during Surveillance Activities:

Evaluation Discussion: No deficiencies noted.





Date: 24 Nov 2010

## Weather Conditions: <u>Clear and sunny</u> Temperature: Low: <u>35</u> High: <u>52</u>

#### 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (List location & description of activity)

- Weston Teams performing Mag and Dig operations, in Future East Garrison MRA Parcel E11b.7.1.1, Control Points 18 to 37.
- Parker Flats MRA Phase 2. Performed 10% QA inspection in Work Area 6, parcel E18.4, grids C2H8C3, C2H8A4, C2H8A1 and Work Area 6, Parcel E18.1.3, grids C2G7E1, C2G6C9, C2G6B4, C2F6J5, C2F6H6.

#### SEE ATTACHED MAP FOR QA VISIT AREAS

#### **Demo Operations:** *N/A*

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- **3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS:** (Assure performing contractor QC is in compliance with the Work Plan)
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist observed Weston Teams performing Mag and Dig operations, in Future East Garrison MRA Parcel E11b.7.1.1, Control Points 18 to 37;
    - 1. Safe work practiced observed
    - 2. Lane control utilized
    - 3. Proper and safe dig techniques used
    - 4. Excavations cleared of anomalies
    - 5. Range debris recovered: Wire and nails
    - 6. Munitions Related Debris found: None
    - 7. MEC found: None
  - ERRG QA performed no less than 10% QA inspections of grids in Parker Flats MRA Phase 2. No deficiencies noted, no MEC encountered in the following areas and grids:
    - 1. Work Area 6, parcel E18.4, grids C2H8C3, C2H8A4 and C2H8A1
    - 2. Work Area 6, Parcel E18.1.3, grids C2G7E1, C2G6C9, C2G6B4, C2F6J5, and C2F6H6.



# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Pictures 1&2: Parcel E11b.7.1.1, Future East Garrison MRA Trails 18/37; Mag and Dig Operations



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |
|  |                   |               |                            |                   |

is E. Fierro

ERRG QA Specialist

Francis in the

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 11/29/10

Observations:

Work Task (Milestone/Activity):

• Weston Teams performing Mag and Dig operations, in Future East Garrison MRA Parcel E11b.7.1.1, Trails 18 to 37.

Survey Period: 11/24/10

Method of Surveillance (Visual, Document Review, Inspection, etc): QA 10% Grid Inspections, Observations Concerning the LFR Team's Performance

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

• ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.

- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston Teams performing Mag and Dig operations, in Future East Garrison MRA Parcel E11b.7.1.1, Control Points 18 to 37;
  - 1. Safe work practiced observed
  - 2. Lane control utilized
  - 3. Proper and safe dig techniques used
  - 4. Excavations cleared of anomalies
  - 5. Range debris recovered: Wire and nails
  - 6. Munitions Related Debris found: None
  - 7. MEC found: None
- ERRG QA performed no less than 10% QA inspections of grids in Parker Flats MRA Phase 2. No deficiencies noted, no MEC encountered in the following areas and grids:
  - 1. Work Area 6, parcel E18.4, grids C2H8C3, C2H8A4 and C2H8A1
  - 8. Work Area 6, Parcel E18.1.3, grids C2G7E1, C2G6C9, C2G6B4, C2F6J5, and C2F6H6.
- MEC found: None

Corrective Action Required: Yes Xo

Evaluation of LFR Team's Performance during Surveillance Activities:

| Evaluation Discussion: |  |
|------------------------|--|
| No deficiencies noted. |  |
|                        |  |





Date: 21 Dec 2010

Weather Conditions: <u>Rain Showers</u> Temperature: Low: <u>50</u> High: <u>57</u>

#### 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (List location & description of activity)

- Weston Teams performing reacquisition and intrusive operations, in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0.
- ERRG QA Specialist Performed QA inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7 in grids C2D6 B8, C2D7B2, C2D7C3.

## SEE ATTACHED MAP FOR QA VISIT AREAS

#### **Demo Operations:** *N/A*

- 2. SUBCONTRACTOR ACTIVITIES: N/A
- 3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan) Work with Weston UXOQC on QA grid inspections.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist observed Weston Teams performing reacquisition and intrusive operations, in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0;
    - 1. Safe work practices observed
    - 2. EM61 operated properly
    - 3. Proper and safe dig techniques used
    - 4. Excavations cleared of anomalies
    - 5. Range debris recovered: None
    - 6. Munitions Related Debris found: None
    - 7. MEC found: None
  - ERRG QA performed QA grid inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7 in grids C2D6 B8, C2D7B2, C2D7C3:
    - 1. Range debris recovered: None
    - 2. Munitions Related Debris found: None
    - 3. MEC found: None



5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A* 



Pictures 1&2: Intrusive operations in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0



Pictures 3&4: EM61 Use in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0



| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |

his E. Fierro

ERRG QA Specialist

Francises M Ch

ERRG MEC QA Manager



#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 01/03/11

Work Task (Milestone/Activity):

- Weston Teams performing reacquisition and intrusive operations, in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0.
- ERRG QA Specialist Performed QA inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7 in grids C2D6 B8, C2D7B2, C2D7C3.

Survey Period: 12/21/10

Method of Surveillance (Visual, Document Review, Inspection, etc): QA Observations Concerning the LFR Team's Performance, QA Grid inspections

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston Teams performing reacquisition and intrusive operations, in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grid C2D6C0;
  - 1. Safe work practices observed
  - 2. EM61 operated properly
  - 3. Proper and safe dig techniques used
  - 4. Excavations cleared of anomalies
  - 5. Range debris recovered: None
  - 6. Munitions Related Debris found: None
  - 7. MEC found: None
- ERRG QA performed QA grid inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7 in grids C2D6 B8, C2D7B2, C2D7C3:
  - 1. Range debris recovered: None
  - 2. Munitions Related Debris found: None
  - 8. MEC found: None

Corrective Action Required:

No

Evaluation of LFR Team's Performance during Surveillance Activities:

Yes

No deficiencies noted.

Evaluation Discussion:




# MEC QA DAILY REPORT

Date: 6 Jan 2011

Weather Conditions: <u>Sunny</u> Temperature: Low: <u>38</u> High: <u>63</u>

## 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (List location & description of activity)

- Weston Teams performing Mag and Dig operations in Future East Garrison MRA Parcel E11B.7.1.1, Grids C2G7A2 and C4G7I1.
- Weston Teams performing Heavy Equipment Excavation Operations in Future East Garrison MRA Parcel E11B.7.1.1, Grid C4G7H3.
- ERRG QA Specialist Perform ed QA inspections in Parker Flats MRA, Parcel E18.1.1, W ork Area 7 in grids C2D6F2, C2D6F0, C2D6E3, C2D6E6, C2D6B4, C2D6B9.

# SEE ATTACHED MAP FOR QA VISIT AREAS

### **Demo Operations:** *N*/*A*

### 2. SUBCONTRACTOR ACTIVITIES: N/A

- 3. CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan) Work with Weston UXOQC on QA grid inspections.
- 4. QA AUDITS AND ACTIVITIES: (In Process Follow-up, Document Non-compliant activities)
  - ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
  - ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
  - ERRG QA Specialist observed Weston Teams performing Mag and Dig operations in Future East Garrison MRA Parcel E11B.7.1.1, Grids C2G7A2 and C4G7I1.
    - 1. Safe work practices observed
    - 2. Lane control observed
    - 3. Proper and safe dig techniques used
    - 4. Excavations cleared of anomalies
    - 5. Range debris recovered: None
    - 6. Munitions Related Debris found: None
    - 7. MEC found in C2G7A2: Two (2) Stoke Mortars and two (2) M125 Slap Flares
    - 8. MEC found in C4G7I1: Two (2) M125 Slap Flares
  - ERRG QA Specialist observed Weston Teams performing Heavy Equipment Excavation Operations in Future East Garrison MRA Parcel E11B.7.1.1, Grid C4G7H3;
    - 1. Safe Heavy Equipment related work practices observed
    - 2. Proper and safe heavy equipment dig techniques used
    - 3. Excavations cleared of anomalies



- 4. Range debris recovered: Steel, Rods, Angle Iron and Steel Stakes.
- 5. Munitions Related Debris found: None
- 6. MEC found: None
- ERRG QA performed QA grid inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grids C2D6F2, C2D6F0, C2D6E3, C2D6E6, C2D6B4, C2D6B9:
  - 1. Range debris recovered: None
  - 2. Munitions Related Debris found: None
  - 3. MEC found: None

# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel: *N/A*



Pictures 1&2: Lane Control being observed during Mag and Dig operations in Future East Garrison MRA Parcel E11B.7.1.1, Work Area 7



Pictures 3&4: Dig technique being observed during Heavy Equipment Excavation Operations in Future East Garrison MRA Parcel E11B.7.1.1, Work Area 7, Grid C4G7H3



# ERRG EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. Schonstedt                                    | 1                 | 1             |                            |                   |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 1                 | 1             |                            |                   |
| c. Site Trucks                                   | 1                 | 1             |                            |                   |
| d. Camera  | 1                 | 1             |                            |                   |

fuis Z. Fierro RG QA Specialist

ERRG QA Specialist

ERRG MEC QA Manager



### Fort Ord Reuse Authority ESCA Remediation Program Quality Assurance Surveillance Plan

#### **QUALITY ASSURANCE OVERSIGHT REPORTING FORM**

Date: 01/11/11

Work Task (Milestone/Activity):

- Weston Teams performing Mag and Dig operations in Future East Garrison MRA Parcel E11B.7.1.1, Grids C2G7A2 and C4G7I1.
- Weston Teams performing Heavy Equipment Excavation Operations in Future East Garrison MRA Parcel E11B.7.1.1, Grid C4G7H3.
- ERRG QA Specialist Performed QA inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7 in grids C2D6F2, C2D6F0, C2D6E3, C2D6E6, C2D6B4, C2D6B9.

Survey Period: 01/06/11

Method of Surveillance (Visual, Document Review, Inspection, etc): QA Observations Concerning the LFR Team's Performance, QA Grid inspections

Observations/Inspections performed by Luis Fierro, ERRG MEC Quality Assurance Professional

Observations:

- ERRG QA Specialist observed Weston teams perform and complete equipment checks prior to operations.
- ERRG QA Specialist observed Weston teams utilizing required PPE during all operations visited.
- ERRG QA Specialist observed Weston Teams performing Mag and Dig operations in Future East Garrison MRA Parcel E11B.7.1.1, Grids C2G7A2 and C4G7I1.
  - 1. Safe work practices observed
  - 2. Lane control observed
  - 3. Proper and safe dig techniques used
  - 4. Excavations cleared of anomalies
  - 5. Range debris recovered: None
  - 6. Munitions Related Debris found: None
  - 7. MEC found in C2G7A2: Two (2) Stoke Mortars and two (2) M125 Slap Flares
  - 8. MEC found in C4G7I1: Two (2) M125 Slap Flares
- ERRG QA Specialist observed Weston Teams performing Heavy Equipment Excavation Operations in Future East Garrison MRA Parcel E11B.7.1.1, Grid C4G7H3;
  - 1. Safe Heavy Equipment related work practices observed
  - 2. Proper and safe heavy equipment dig techniques used
  - 3. Excavations cleared of anomalies
  - 4. Range debris recovered: Steel, Rods, Angle Iron and Steel Stakes.
  - 5. Munitions Related Debris found: None
  - 6. MEC found: None
- ERRG QA performed QA grid inspections in Parker Flats MRA, Parcel E18.1.1, Work Area 7, Grids C2D6F2, C2D6F0, C2D6E3, C2D6E6, C2D6B4, C2D6B9:
  - 1. Range debris recovered: None
  - 2. Munitions Related Debris found: None
  - 3. MEC found: None

Corrective Action Required:

No No

Evaluation of LFR Team's Performance during Surveillance Activities:

Yes

No deficiencies noted.

Evaluation Discussion:





# MEC QA DAILY REPORT

Date: 23 March 2011

Weather Conditions: <u>Partly Cloudy</u> Temperature: Low: <u>55</u> High: <u>73</u>

- 1. **OPERATIONS PERFORMED/OBSERVED TODAY:** (List location & description of activity)
  - ERRG QA Team Performed QA inspections in Parker Flats Work Area 7, Nineteen (19) predestinated Digs.

# SEE ATTACHED MAP FOR QA VISIT AREA

**Demo Operations:** *N/A* 

# 2. SUBCONTRACTOR ACTIVITIES: N/A

- **3.** CONTRACTOR QC PREPARATORY, INITIAL and FOLLOW-UP INSPECTIONS: (Assure performing contractor QC is in compliance with the Work Plan)
  - QA grid inspection area listed in section one.

# 4. QA AUDITS AND ACTIVITIES:

- QA Team performed QA inspections in Parker Flats Work Area 7:
  - 1. Range debris recovered: Nails, Aluminum Caps, Aluminum Scrap, Corner Spikes, Small Arms 30.06 (1),
  - 2. Munitions Related Debris found: None
  - 3. MEC found: None

# 5. WRITTEN/VERBAL INSTRUCTIONS RECEIVED: List any instructions given by FORA/Client Personnel:



Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: German Peña

**PICTURES** 



Picture 1: Dig WAVII\_002; Nail



Picture 2: Dig WSVII\_005, No Contact; Rusty Soil





Picture 3: Dig WAVII\_007; Nail



Picture 4: Dig WAVII\_007; Nail





Pictures 5 & 6: Dig WAVII\_008; Corner Spike



Picture 7: Dig WAVII\_008; Corner Spike



Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: German Peña



Picture 8: Dig WAVII\_010; Nail Imbedded in board 2x4x6



Picture 9: WAVII\_013 and WAVII\_014; Shared Hit, Aluminum Cap



Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: German Peña



Picture 10: Dig WAVII\_019; No Contact; Possible Terrain Feature Disturbance



Picture 11: Dig WAVII\_016





Picture 12: Dig WAVII\_015; Small Arms 30.06



Picture 13: Dig WAVII\_17; Aluminum Cap w/Metal Probe



# ERRG EQUIPMENT STATUS

| DISCRIPTION                                      | QTY<br>ON<br>HAND | QTY IN<br>USE | QTY DOWN<br>FOR<br>REPAIRS | QTY ON<br>STANDBY |
|--|-------------------|---------------|----------------------------|-------------------|
| a. EM-61   | 1                 | 1             | 0                          | 0                 |
| b. Whites; Surf PI(Pulse<br>Induction)Dual field | 0                 | 0             | 0                          | 0                 |
| c. Site Trucks                                   | 1                 | 1             | 0                          | 0                 |
| d. Camera  | 1                 | 1             | 0                          | 0                 |

ERRG MEC QA Manager



November 23, 2010

Mr. Frank Cota ERRG, Incorporated 4585 Pacheco Boulevard, Ste 200 Martinez, California 94553

### Subject: Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI), Work Area 4 and 5 FORA DGM QA Resurvey Report, Former Fort Ord Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Parker Flats Phase 2 MRA RI Work Area 4 and 5 Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord, Parker Flats Work Area 4 which includes all or portions of parcels E18.1.1 and E18.1.2; and Work Area 5 which includes all or portions of parcels E19a.1 and E18.1.2. This review was performed using the data available within the August 2, 2010 data transmittal provided by Mark Saunders of Weston Solutions, Inc. and DGM QA resurvey data obtained on September 13 and 14, 2010.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Parker Flats Phase 2 MRA RI Work Area 4 and 5 DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout the Parker Flats Work Area 4 and 5. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 21.3 acres of the investigation areas identified covering a total area of approximately 68.2 acres in Work Area 4 and 5. InDepth performed a DGM QA resurvey of 1.5 acres, representing approximately 7% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in September, 2010. ERRG provided the Intrusive investigation results to InDepth on November 3, 2010. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase 2 MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 4 and 5 FORA DGM QA Resurvey Report Page 2 of 6

# **DGM QA DATA EVALUATION PROCEDURES**

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

# PARKER FLATS PHASE 2 MRA RI WORK AREA 4 AND 5 DGM DATA EVALUATION RESULTS

Data evaluation was performed for the Parker Flats Phase 2 MRA RI Work Area 4 and 5 DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

Evaluation of these DGM data for Work Areas 4 and 5 were used different criteria based on the proposed land usage. The DGM QA Resurvey data for Parker Flats Work Area 4 were evaluated using a 50 mV anomaly selection criteria, on the summation data, based on the commercial land use criteria. The DGM QA Resurvey data for Parker Flats Work Area 5 were evaluated using a 20 mV anomaly selection criteria, on the summation data, based on the residential land use criteria.

# PARKER FLATS PHASE 2 MRA RI WORK AREA 4 AND 5 DGM QA RESURVEY

**Parker Flats Work Area 4 Grid C2C7GO QA Resurvey Results.** The QA resurvey in the Work Area 4 QA grid (C2C7G0) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and six geophysical anomalies

### Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 4 and 5 FORA DGM QA Resurvey Report Page 3 of 6

selected as targets for further investigation, as indicated in Tables 1 and 2. Five of the 6 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 6 targets resulted in zero no-contacts (false-positives), five pieces of munitions related debris and one small metallic item, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 4 Grid C2C7G0 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 4 Grid C2C7G7 QA Resurvey Results.** The QA resurvey in the Work Area 4 QA grid (C2C7G7) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and four geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Two of the four DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 4 targets resulted in no false-positives, one piece of munitions related debris and three small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 4 Grid C2C7G7 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 4 Grid C2C6J8 QA Resurvey Results.** The QA resurvey in the Work Area 4 QA grid (C2C6J8) comprised a rectangular polygon approximately 100 ft by 90 ft resulting in approximately 9,119 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and no geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Because no targets exceeding the 50mV response criteria on the summation were identified the results of the Parker Flats Work Area 4 Grid C2C6J8 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 4 Grid C2D6A5 QA Resurvey Results.** The QA resurvey in the Work Area 4 QA Grid (C2D6A5) comprised a rectangular polygon approximately 100 ft by 75 ft resulting in approximately 7,579 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and two geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the two DGM QA targets was located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 2 targets resulted in no false-positives, and two small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 4 Grid C2D6A5 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 5 Grid C2G8F8 QA Resurvey Results.** The QA resurvey in the Work Area 5 QA Grid (C2G8F8) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 5.

### Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 4 and 5 FORA DGM QA Resurvey Report Page 4 of 6

The QA DGM resurvey resulted in a site characterized by background readings and 32 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Fifteen of the 32 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 32 targets resulted in four false-positives, fourteen pieces of munitions related debris, and fourteen small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 5 Grid C2G8F8 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 5 Grid C2G9G2 QA Resurvey Results.** The QA resurvey in the Work Area 5 QA Grid (C2G9G2) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 6. The QA DGM resurvey resulted in a site characterized by background readings and four geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. None of the four DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 4 targets resulted in no false-positives, two pieces of munitions related debris and two small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 5 Grid C2G9G2 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 5 Grid C2GOI1 QA Resurvey Results.** The QA resurvey in the Work Area 5 QA Grid 7 polygon (C2GOI1) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in approximately 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 7. The QA DGM resurvey resulted in a site characterized by background readings and ten geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Seven of the ten DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 10 targets resulted in five false-positives and five small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 5 Grid C2GOI1 QA Resurvey meet the work plan QA objectives.

# PARKER FLATS PHASE 2 MRA RI WORK AREA 4 AND 5 RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

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Intrusive investigation for all of these 54 targets resulted in 9 false-positives, 22 items of munitions related debris; the remaining targets were associated various pieces of scrap metal and survey control spikes, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of aggressive target selection of low amplitude anomalies used to identify any potential failures of the production DGM process being utilized. None of the munitions debris related items recovered during the intrusive activities had a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 4 and 5 QA Resurvey indicates that the Weston Work Area 4 and 5 DGM data and results meet the work plan QA objectives.

# **CONCLUSIONS AND RECOMMENDATIONS**

The results of the Parker Flats Work Area 4 and 5 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Parker Flats Work Area 4 and 5 DGM QA Resurvey 54 QA targets were identified, thirtyone of which were identified within 3.0 feet of an existing Weston DGM target. However, none of these targets resulted in the discovery of a munitions debris related item with a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 4 and 5 QA Resurvey indicates that the Weston Work Area 4 and 5 DGM data and results meet the work plan QA objectives.

# STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions

Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 4 and 5 FORA DGM QA Resurvey Report Page 6 of 6

regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

# Respectfully, InDepth Corporation

Brin Huker

Brian W. Hecker Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables QA Resurvey Data Evaluation Figures

cc: file

### Table 1.

# DGM QA Resurvey Investigation Summary FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Geophysical<br>Operation | Parker Flats<br>Area<br>Designation | FORA Grid<br>Designation | Total Area<br>Investigated<br>(sqft) | Number of<br>Targets |
|--------------------------|-------------------------------------|--------------------------|--------------------------------------|----------------------|
| QA Resurvey              | WA 4                                | C2C7G0                   | 10000                                | 6                    |
| QA Resurvey              | WA 4                                | C2C7G7                   | 10000                                | 4                    |
| QA Resurvey              | WA 4                                | C2C6J8                   | 9119                                 | 0                    |
| QA Resurvey              | WA 4                                | C2D6A5                   | 7579                                 | 2                    |
| QA Resurvey              | WA 5                                | C2G8F8                   | 10000                                | 32                   |
| QA Resurvey              | WA 5                                | C2G9G2                   | 10000                                | 4                    |
| QA Resurvey              | WA 5                                | C2G0I1                   | 10000                                | 10                   |

### Table 2.

# DGM QA Target List FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats |               | Easting    | Northing   | Target<br>Response | 11    |
|--------------|---------------|------------|------------|--------------------|-------|
| Area         | Target Name   | (US Survey | (US Survey | Value              | Units |
| Designation  |               | Feet)      | Feet)      | (Sum)              |       |
| Work Area 4  | WA4_C2C7G0_01 | 5742441.00 | 2124643.50 | 136.84             | mV    |
| Work Area 4  | WA4_C2C7G0_02 | 5742460.00 | 2124609.00 | 99.97              | mV    |
| Work Area 4  | WA4_C2C7G0_03 | 5742434.00 | 2124618.50 | 93.79              | mV    |
| Work Area 4  | WA4_C2C7G0_04 | 5742452.00 | 2124615.00 | 71.06              | mV    |
| Work Area 4  | WA4_C2C7G0_05 | 5742456.00 | 2124613.50 | 65.59              | mV    |
| Work Area 4  | WA4_C2C7G0_06 | 5742457.00 | 2124624.00 | 64.89              | mV    |
| Work Area 4  | WA4_C2C7G7_01 | 5742126.50 | 2124664.00 | 90.92              | mV    |
| Work Area 4  | WA4_C2C7G7_02 | 5742104.50 | 2124665.00 | 59.17              | mV    |
| Work Area 4  | WA4_C2C7G7_03 | 5742159.00 | 2124638.50 | 58.95              | mV    |
| Work Area 4  | WA4_C2C7G7_04 | 5742123.50 | 2124618.00 | 58.46              | mV    |
| Work Area 4  | WA4_C2D6A5_01 | 5740980.50 | 2125058.00 | 1856.52            | mV    |
| Work Area 4  | WA4_C2D6A5_02 | 5740915.00 | 2125052.00 | 50.57              | mV    |
| Work Area 5  | WA5_C2G8F8_01 | 5743255.50 | 2128546.50 | 146991.91          | mV    |
| Work Area 5  | WA5_C2G8F8_02 | 5743200.00 | 2128500.50 | 1467.24            | mV    |
| Work Area 5  | WA5_C2G8F8_03 | 5743250.00 | 2128551.00 | 990.43             | mV    |
| Work Area 5  | WA5_C2G8F8_04 | 5743226.50 | 2128545.00 | 115.55             | mV    |
| Work Area 5  | WA5_C2G8F8_05 | 5743242.00 | 2128598.50 | 114.27             | mV    |
| Work Area 5  | WA5_C2G8F8_06 | 5743260.50 | 2128551.00 | 82.17              | mV    |
| Work Area 5  | WA5_C2G8F8_07 | 5743290.50 | 2128578.50 | 72.54              | mV    |
| Work Area 5  | WA5_C2G8F8_08 | 5743204.50 | 2128588.00 | 66.28              | mV    |
| Work Area 5  | WA5_C2G8F8_09 | 5743285.50 | 2128586.00 | 59.58              | mV    |
| Work Area 5  | WA5_C2G8F8_10 | 5743226.00 | 2128583.50 | 58.76              | mV    |
| Work Area 5  | WA5_C2G8F8_11 | 5743231.50 | 2128587.50 | 52.20              | mV    |
| Work Area 5  | WA5_C2G8F8_12 | 5743259.00 | 2128560.50 | 42.97              | mV    |
| Work Area 5  | WA5_C2G8F8_13 | 5743229.50 | 2128583.00 | 42.27              | mV    |
| Work Area 5  | WA5_C2G8F8_14 | 5743217.00 | 2128589.50 | 39.14              | mV    |
| Work Area 5  | WA5_C2G8F8_15 | 5743298.00 | 2128593.00 | 37.54              | mV    |
| Work Area 5  | WA5_C2G8F8_16 | 5743248.00 | 2128545.00 | 33.16              | mV    |
| Work Area 5  | WA5_C2G8F8_17 | 5743293.50 | 2128580.00 | 31.99              | mV    |
| Work Area 5  | WA5_C2G8F8_18 | 5743275.00 | 2128575.00 | 31.00              | mV    |
| Work Area 5  | WA5_C2G8F8_19 | 5743239.00 | 2128554.50 | 30.54              | mV    |
| Work Area 5  | WA5_C2G8F8_20 | 5743208.00 | 2128587.00 | 29.05              | mV    |
| Work Area 5  | WA5_C2G8F8_21 | 5743215.50 | 2128559.00 | 27.29              | mV    |

InDepth Corporation, 6970 Flanders Drive, San Diego, CA 92121

### Table 2.

# DGM QA Target List FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats<br>Area<br>Designation | Target Name   | Easting<br>(US Survey<br>Feet) | Northing<br>(US Survey<br>Feet) | Target<br>Response<br>Value<br>(Sum) | Units |
|-------------------------------------|---------------|--------------------------------|---------------------------------|--------------------------------------|-------|
| Work Area 5                         | WA5_C2G8F8_22 | 5743262.00                     | 2128570.50                      | 22.84                                | mV    |
| Work Area 5                         | WA5_C2G8F8_23 | 5743299.50                     | 2128557.00                      | 22.31                                | mV    |
| Work Area 5                         | WA5_C2G8F8_24 | 5743280.50                     | 2128513.00                      | 22.25                                | mV    |
| Work Area 5                         | WA5_C2G8F8_25 | 5743282.00                     | 2128582.00                      | 22.17                                | mV    |
| Work Area 5                         | WA5_C2G8F8_26 | 5743284.50                     | 2128580.00                      | 22.00                                | mV    |
| Work Area 5                         | WA5_C2G8F8_27 | 5743219.94                     | 2128580.36                      | 21.55                                | mV    |
| Work Area 5                         | WA5_C2G8F8_28 | 5743280.00                     | 2128551.50                      | 20.97                                | mV    |
| Work Area 5                         | WA5_C2G8F8_29 | 5743246.50                     | 2128510.50                      | 20.50                                | mV    |
| Work Area 5                         | WA5_C2G8F8_30 | 5743292.22                     | 2128553.42                      | 20.43                                | mV    |
| Work Area 5                         | WA5_C2G8F8_31 | 5743298.99                     | 2128562.08                      | 20.15                                | mV    |
| Work Area 5                         | WA5_C2G8F8_32 | 5743290.96                     | 2128507.49                      | 20.06                                | mV    |
| Work Area 5                         | WA5_C2G9G2_01 | 5743678.50                     | 2128688.00                      | 65.66                                | mV    |
| Work Area 5                         | WA5_C2G9G2_02 | 5743691.50                     | 2128608.50                      | 49.11                                | mV    |
| Work Area 5                         | WA5_C2G9G2_03 | 5743670.50                     | 2128644.50                      | 28.71                                | mV    |
| Work Area 5                         | WA5_C2G9G2_04 | 5743622.00                     | 2128617.50                      | 20.33                                | mV    |
| Work Area 5                         | WA5_C2G0I1_01 | 5744570.50                     | 2128898.00                      | 86.90                                | mV    |
| Work Area 5                         | WA5_C2G0I1_02 | 5744575.50                     | 2128872.00                      | 67.41                                | mV    |
| Work Area 5                         | WA5_C2G0I1_03 | 5744578.50                     | 2128839.50                      | 58.40                                | mV    |
| Work Area 5                         | WA5_C2G0I1_04 | 5744573.00                     | 2128872.00                      | 37.38                                | mV    |
| Work Area 5                         | WA5_C2G0I1_05 | 5744570.00                     | 2128894.50                      | 26.22                                | mV    |
| Work Area 5                         | WA5_C2G0I1_06 | 5744573.00                     | 2128890.00                      | 25.50                                | mV    |
| Work Area 5                         | WA5_C2G0I1_07 | 5744578.00                     | 2128800.00                      | 21.83                                | mV    |
| Work Area 5                         | WA5_C2G0I1_08 | 5744525.50                     | 2128850.50                      | 21.12                                | mV    |
| Work Area 5                         | WA5_C2G0I1_09 | 5744574.00                     | 2128865.50                      | 20.98                                | mV    |
| Work Area 5                         | WA5_C2G0I1_10 | 5744583.50                     | 2128867.00                      | 20.37                                | mV    |

#### Table 3.

QA Intrusive Investigation Results

FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report

#### Former Fort Ord, Parker Flats

#### Monterey County, California

| Project Name: FORA QA2 Resurvey                       |                           |                    |                  |                             |                                | UXO Contractor LFR / Weston             |                              |                             | Equipment Seri            |                             |  |
|---|---------------------------|--------------------|------------------|-----------------------------|--------------------------------|---|------------------------------|-----------------------------|---------------------------|-----------------------------|--|
| Project Location: Monterey County, CA                 |                           |                    |                  |                             | Geophysical Contractor: Weston |   | EM61                         | Westo                       |                           |                             |  |
| Coordinate System: NAD83 CS83 Zone 4 (US survey feet) |                           |                    |                  |                             |                                | Project Geophysicist: Matthew Gifford A |                              |                             | Allegro                   |                             |  |
| Survey Area:  |                           | Parker Flats       | Work Area 4 an   | d 5                         | QC Geophysicist:               |   |                              |                             | Magnetometer S            |                             |  |
| Field Team:<br>Date: Sentember 20                     | 10                        |                    |                  |                             | CA Contracto                   | JU:<br>r·                               | InDenth / ERRG               |                             | All Metals<br>Positioning | While AL<br>Trimble PT      |  |
| Team Leader Signal                                    | ture:                     |                    |                  |                             | OA Geophysi                    | cist:                                   | Brian Hecker                 |                             | 1 Usitioning              | N                           |  |
| Project:  | FORA QA2 Resurvey         |                    | Survey Area:     |                             | Parker Flats V                 | Nork Area 4 ar                          | Field Team:                  | (                           | Date:                     |                             |  |
| NOTE 1 - Anomaly                                      | Гуре: U = UXO, F = Frag   |                    |                  |                             |                                |   |                              |                             |                           |                             |  |
| NOTE 2 - Target Az                                    | imuth: N = North, NW = N  | lorthwest, W = Wes | t, SW = Southw   | est, S = South              | , SE = Southea                 | ast, E = East, N                        | IE = Northeas                |                             |                           |                             |  |
| NOTE 3 -Target Incl                                   | ination: NU = Vertical No |                    |                  |                             |                                |   |                              |                             |                           |                             |  |
| Т   | arget Info                | Reacquis           | ition Survey     |                             |                                |   |                              | Dig                         | g Results                 |                             |  |
| Target Name   | Instrument<br>Response    | its Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.)    | Azimuth<br>of nose<br>(note 2)          | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number   | Comments                    |  |
| WA4_C2C7G0_01   | 136.843689 Stack          | cmV Ch3            |                  | А                           | 0.10                           |   |                              | 1                           | 21                        | BRASS                       |  |
| WA4_C2C7G0_02   | 99.96543884 Stack         | cmV Ch3            |                  | F                           | 0.05                           |   |                              | 6                           |                           | FRAG                        |  |
| WA4_C2C7G0_03   | 93.79406738 Stack         | cmV Ch3            |                  | F                           | 0.01                           |   |                              | 1                           |                           | FRAG                        |  |
| WA4_C2C7G0_04   | 71.0615921 Stack          | cmV Ch3            |                  | F                           | 0.30                           |   |                              | 7                           |                           | FRAG                        |  |
| WA4_C2C7G0_05   | 65.59170532 Stack         | cmV Ch3            |                  | F                           | 0.10                           |   |                              | 1                           |                           | THREE PIECES OF FRAG        |  |
| WA4_C2C7G0_06   | 64.88592529 Stack         | cmV Ch3            |                  | 0                           | 0.01                           |   |                              | 1                           |                           | SMALL CHUNK OF METAL        |  |
| WA4_C2C7G7_01   | 90.91946411 Stack         | cmV Ch3            |                  | 0                           | 0.03                           |   |                              | 5                           |                           | LARGE NAIL                  |  |
| WA4_C2C7G7_02   | 59.16883469 Stack         | cmV Ch3            |                  | 0                           | 0.01                           |   |                              | 3                           |                           | NAIL                        |  |
| WA4_C2C7G7_03   | 58.94586945 Stack         | cmV Ch3            |                  | F                           | 0.01                           |   |                              | 2                           |                           | FRAG                        |  |
| WA4_C2C7G7_04   | 58.45503235 Stack         | cmV Ch3            |                  | 0                           | 0.03                           |   |                              | SURFACE                     |                           | LARGE NAIL                  |  |
| WA4_C2D6A5_01   | 1856.522705 Stack         | cmV Ch3            |                  | 0                           | 0.10                           |   |                              | 1                           |                           | SURVEY STAKE-LEFT IN GROUND |  |
| WA4_C2D6A5_02   | 50.56520462 Stack         | cmV Ch3            |                  | 0                           | 0.01                           |   |                              | 1                           |                           | NAIL                        |  |
| WA5_C2G8F8_01   | 146991.9063 Stack         | cmV Ch3            |                  | S                           | 6.00                           |   |                              | SURFACE                     | 7                         | LARGE PIECE OF METAL        |  |
| WA5_C2G8F8_02   | 1467.242188 Stack         | cmV Ch3            |                  | 0                           | 0.30                           |   |                              | 1                           |                           | LARGE SURVEY NAIL           |  |
| WA5_C2G8F8_03   | 990.4290771 Stack         | cmV Ch3            |                  | А                           | 0.20                           |   |                              | 2                           | 9                         | TWO PIECES OF BRASS         |  |
| WA5_C2G8F8_04   | 115.5468445 Stack         | cmV Ch3            |                  | S                           | 0.50                           |   |                              | 7                           |                           | U SHAPED SCRAP              |  |
| WA5_C2G8F8_05   | 114.27285 Stack           | cmV Ch3            |                  | S                           | 0.50                           |   |                              | 18                          |                           | 3"X2"                       |  |
| WA5_C2G8F8_06   | 82.17218781 Stack         | cmV Ch3            |                  | А                           | 0.10                           |   |                              | 2                           | 6                         | BRASS                       |  |
| WA5_C2G8F8_07   | 72.53782654 Stack         | cmV Ch3            |                  | 0                           | 0.05                           |   |                              | 2                           |                           | NAIL                        |  |
| WA5_C2G8F8_08   | 66.2811203 Stack          | cmV Ch3            |                  | 0                           | 0.05                           |   |                              | 1                           |                           | NAIL                        |  |
| WA5_C2G8F8_09   | 59.57949066 Stack         | cmV Ch3            |                  | A                           | 0.20                           |   |                              | 3                           | 18                        | TWO PIECES OF BRASS         |  |
| WA5_C2G8F8_10   | 58.75978851 Stack         | cmV Ch3            |                  | 0                           | 0.05                           |   |                              | 2                           |                           | 5" PIECE OF CONCERTINA WIRE |  |
| WA5_C2G8F8_11   | 52.19934845 Stack         | cmV Ch3            |                  | S                           | 0.25                           |   |                              | 5                           |                           | 4"X2"                       |  |

#### Table 3.

QA Intrusive Investigation Results

FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report

#### Former Fort Ord, Parker Flats

#### Monterey County, California

| Project:  | ject: FORA QA2 Resurvey Survey Area: Parker Flats Work Area 4 an Field Team: 0 Date:   |                |            |                  |                             |                             |                                |                                 |                             |                         |                                     |  |
|---|--|----------------|------------|------------------|-----------------------------|-----------------------------|--------------------------------|---------------------------------|-----------------------------|-------------------------|-------------------------------------|--|
| NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD = Munitions Debris, S = Scrap, A = Small Arms Ammunition, NC = No Contact, O = Other |  |                |            |                  |                             |                             |                                |                                 |                             |                         |                                     |  |
| NOTE 2 - Target Azi   | NOTE 2 - ranget Azimum, in a morting in waar west, swaar a southwest, sa a south se a southeast, e a cast, inclastic a construction in the analysis of the ana |                |            |                  |                             |                             |                                |                                 |                             |                         |                                     |  |
|   | arget Info   | .icai Nosc op, | Reacquisit | tion Survey      |                             | 103C OP, IND -              |                                | Down, H - Honzona               | Dic                         | Results                 |                                     |  |
| Target Name   | Instrument<br>Response   | Units          | Channel    | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of<br>nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments                            |  |
| WA5_C2G8F8_12   | 42.97108459  | Stack mV       | Ch3        |                  | S                           | 0.01                        |                                |                                 | 3                           |                         | 1"X1"                               |  |
| WA5_C2G8F8_13   | 42.2727356   | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 2                           | 11                      | BRASS                               |  |
| WA5_C2G8F8_14   | 39.13900757  | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 5                           | 12                      | BRASS                               |  |
| WA5_C2G8F8_15   | 37.53800964  | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 4                           | 17                      | BRASS                               |  |
| WA5_C2G8F8_16   | 33.1558075   | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 1                           | 8                       | BRASS                               |  |
| WA5_C2G8F8_17   | 31.9865799   | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 3                           | 16                      | BRASS                               |  |
| WA5_C2G8F8_18   | 30.99568176  | Stack mV       | Ch3        |                  | A                           | 0.20                        |                                |                                 | 4                           | 13                      | TWO PIECES OF BRASS                 |  |
| WA5_C2G8F8_19   | 30.53653717  | Stack mV       | Ch3        |                  | 0                           | 0.20                        |                                |                                 | 2                           |                         | AA BATTERY                          |  |
| WA5_C2G8F8_20   | 29.05007172  | Stack mV       | Ch3        |                  | NC                          |                             |                                |                                 | ļ                           |                         |                                     |  |
| WA5_C2G8F8_21   | 27.29254913  | Stack mV       | Ch3        |                  | A                           | 0.10                        |                                |                                 | 7                           | 10                      | BRASS                               |  |
| WA5_C2G8F8_22   | 22.83972931  | Stack mV       | Ch3        |                  | 0                           | 0.05                        |                                |                                 | 6                           |                         | SODA CAN                            |  |
| WA5_C2G8F8_23   | 22.31438446  | Stack mV       | Ch3        |                  | А                           | 0.10                        |                                |                                 | 2                           | 3                       | BRASS                               |  |
| WA5_C2G8F8_24   | 22.24518585  | Stack mV       | Ch3        |                  | 0                           | 0.20                        |                                |                                 | 6                           |                         | BOLT                                |  |
| WA5_C2G8F8_25   | 22.16829681  | Stack mV       | Ch3        |                  | А                           | 0.10                        |                                |                                 | 6                           | 14                      | BRASS                               |  |
| WA5_C2G8F8_26   | 21.99569702  | Stack mV       | Ch3        |                  | А                           | 0.10                        |                                |                                 | 9                           | 15                      | BRASS                               |  |
| WA5_C2G8F8_27   | 21.54962293  | Stack mV       | Ch3        |                  | 0                           | 0.05                        |                                |                                 | 24                          |                         | SODA CAN                            |  |
| WA5_C2G8F8_28   | 20.97245026  | Stack mV       | Ch3        |                  | А                           | 0.10                        |                                |                                 | 1                           | 5                       | BRASS                               |  |
| WA5_C2G8F8_29   | 20.50095367  | Stack mV       | Ch3        |                  | NC                          |                             |                                |                                 |                             |                         |                                     |  |
| WA5_C2G8F8_30   | 20.43238756  | Stack mV       | Ch3        |                  | NC                          |                             |                                |                                 |                             |                         |                                     |  |
| WA5_C2G8F8_31   | 20.15432504  | Stack mV       | Ch3        |                  | А                           | 0.10                        |                                |                                 | 6                           | 4                       | BRASS                               |  |
| WA5_C2G8F8_32   | 20.06212263  | Stack mV       | Ch3        |                  | NC                          |                             |                                |                                 |                             |                         |                                     |  |
| WA5_C2G9G2_01   | 65.65695953  | Stack mV       | Ch3        |                  | А                           | 0.40                        |                                |                                 | 8                           | 20                      | THREE PIECES OF BRASS AND AMMO CLIP |  |
| WA5_C2G9G2_02   | 49.11320877  | Stack mV       | Ch3        |                  | 0                           | 0.01                        |                                |                                 | 6                           |                         | NAIL                                |  |
| WA5_C2G9G2_03   | 28.70508957  | Stack mV       | Ch3        |                  | MD                          | 0.20                        |                                |                                 | 2                           | 19                      | PARTIAL GRENADE FUZE (80%)          |  |
| WA5_C2G9G2_04   | 20.32651329  | Stack mV       | Ch3        |                  | 0                           | 0.05                        |                                |                                 | 2                           |                         | SODA CAN                            |  |
| WA5_C2G0I1_01   | 86.89700317  | Stack mV       | Ch3        |                  | 0                           | 0.01                        |                                |                                 | SURFACE                     |                         | SMALL WIRE                          |  |
| WA5_C2G0I1_02   | 67.41181183  | Stack mV       | Ch3        |                  | 0                           | 0.01                        |                                |                                 | SURFACE                     |                         | NAIL                                |  |

#### Table 3.

#### QA Intrusive Investigation Results

FORA Parker Flats Work Area 4 and 5 DGM QA Resurvey Report

#### Former Fort Ord, Parker Flats

#### Monterey County, California

| Project:   | FORA QA2 Resu  | urvey        |              | Survey Area:     | Parker Flats Work Area 4 an Field Team: 0 Date: |                             |                                |                                 |                             |                         |            |  |
|--|--|--------------|--------------|------------------|---|-----------------------------|--------------------------------|---------------------------------|-----------------------------|-------------------------|------------|--|
| NOTE 1 - Anomaly 1   | ype: U = UXO, F  | = Frag, MD = | Munitions De | bris, S = Scrap  | , A = Small Arn                                 | ns Ammunitior               | i, NC = No Cor                 | ntact, O = Other                |                             |                         |            |  |
| NOTE 2 - Target Azi  | NOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeas |              |              |                  |   |                             |                                |                                 |                             |                         |            |  |
| NOTE 3 - Target Inclination: NU = Vertical Nose Up, ND = Vertical Nose Down, INU = Inclined Nose Up, IND = Inclined Nose Down, H = Horizonta |  |              |              |                  |   |                             |                                |                                 |                             |                         |            |  |
| Т  | Target Info Reacquisition Survey Dig Results   |              |              |                  |   |                             |                                |                                 |                             |                         |            |  |
| Target Name  | Instrument<br>Response   | Units        | Channel      | Response<br>(mV) | Anomaly<br>Type<br>(note 1)                     | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of<br>nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments   |  |
| WA5_C2G0I1_03  | 58.4036293   | Stack mV     | Ch3          |                  | NC  |                             |                                |                                 |                             |                         |            |  |
| WA5_C2G0I1_04  | 37.38451767  | Stack mV     | Ch3          |                  | 0   | 0.01                        |                                |                                 | SURFACE                     |                         | NAIL       |  |
| WA5_C2G0I1_05  | 26.22029686  | Stack mV     | Ch3          |                  | NC  |                             |                                |                                 |                             |                         |            |  |
| WA5_C2G0I1_06  | 25.5014286   | Stack mV     | Ch3          |                  | NC  |                             |                                |                                 |                             |                         |            |  |
| WA5_C2G0I1_07  | 21.82539177  | Stack mV     | Ch3          |                  | 0   | 0.04                        |                                |                                 | 6                           |                         | METAL RING |  |
| WA5_C2G0I1_08  | 21.12143326  | Stack mV     | Ch3          |                  | NC  |                             |                                |                                 |                             |                         |            |  |
| WA5_C2G0I1_09  | 20.98319626  | Stack mV     | Ch3          |                  | 0   | 0.01                        |                                |                                 | 8                           |                         | NAIL       |  |
| WA5_C2G0I1_10  | 20.36732292  | Stack mV     | Ch3          |                  | NC  |                             |                                |                                 |                             |                         |            |  |

















November 23, 2010

Mr. Frank Cota ERRG, Incorporated 4585 Pacheco Boulevard, Ste 200 Martinez, California 94553

### Subject: Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI), Work Area 6 FORA DGM QA Resurvey Report, Former Fort Ord Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Parker Flats Phase 2 MRA RI Work Area 6 Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord, Parker Flats Work Area 6 which includes all or portions of parcels E18.1.1, E18.1.2 and E18.4. This review was performed using the data available within the August 2, 2010 data transmittal provided by Mark Saunders of Weston Solutions, Inc. and DGM QA resurvey data obtained on September 27, 2010.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Parker Flats Phase 2 MRA RI Work Area 6 DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout the Parker Flats Work Area 6. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 9.2 acres of the investigation areas identified covering a total area of approximately 48.3 acres in Work Area 6. InDepth performed a DGM QA resurvey of 0.6 acres, representing approximately 6.5% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in September, 2010. ERRG provided the Intrusive investigation results to InDepth on November 3, 2010. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase 2 MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 6 FORA DGM QA Resurvey Report Page 2 of 5

# **DGM QA DATA EVALUATION PROCEDURES**

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

# PARKER FLATS PHASE 2 MRA RI WORK AREA 6 DGM DATA EVALUATION RESULTS

Data evaluation was performed for the Parker Flats Phase 2 MRA RI Work Area 6 DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated by using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

The DGM QA Resurvey data for Parker Flats Work Area 6 were evaluated using the 20 mV anomaly selection criteria, on the summation data, based on the residential land use criteria.

# PARKER FLATS PHASE 2 MRA RI WORK AREA 6 DGM QA RESURVEY

**Parker Flats Work Area 6 Grid C2F6IO QA Resurvey Results.** The QA resurvey in the Work Area 6 QA grid (C2F6IO) comprised a rectangular polygon approximately 100 ft by 100 ft resulting in 10,000 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 109 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Fifty-two of the 109 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 109 targets resulted in ten no-contacts (false-positives), one piece of munitions related debris and 99 small metallic items, as shown in Table 3.

Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 6 FORA DGM QA Resurvey Report Page 3 of 5

Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 6 Grid C2F6I0 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 6 Grid C2G6E7 QA Resurvey Results.** The QA resurvey in the Work Area 6 QA grid (C2G6E7) comprised a rectangular polygon approximately 100 ft by 50 ft resulting in approximately 5,425 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 2. The QA DGM resurvey resulted in a site characterized by background readings and 48 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Thirty-three of the 48 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 4 targets resulted in eight false-positives, no munitions related debris and four small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 6 Grid C2G6E7 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 6 Grid C2G8G4 QA Resurvey Results.** The QA resurvey in the Work Area 6 QA Grid 3 (C2G8G4) comprised an irregular polygon approximately 100 ft by 50 ft resulting in 5,443 ft<sup>2</sup> and of DGM QA resurvey, as shown on Figure 3. The QA DGM resurvey resulted in a site characterized by background readings and 24 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Sixteen of the 24 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 24 targets resulted in seven false-positives, one piece of munitions related debris and sixteen small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 6 Grid C2G8G4 QA Resurvey meet the work plan QA objectives.

**Parker Flats Work Area 6 Grid C2G8H1 QA Resurvey Results.** The QA resurvey in the Work Area 6 QA Grid (C2G8H1) comprised a rectangular polygon approximately 100 ft by 50 ft resulting in approximately 5,782 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 4. The QA DGM resurvey resulted in a site characterized by background readings and 14 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. Six of the 14 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 14 targets resulted in three false-positives, one piece of munitions related debris and ten small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey grid, the results of the Parker Flats Work Area 6 Grid C2G8H1 QA Resurvey meet the work plan QA objectives.
Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 6 FORA DGM QA Resurvey Report Page 4 of 5

### PARKER FLATS PHASE 2 MRA RI WORK AREA 6 RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 195 targets resulted in 27 false-positives, 3 items of MEC related debris; the remaining targets were associated various pieces of scrap metal and survey control spikes, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of aggressive target selection of low amplitude anomalies used to identify any potential failures in the production DGM process being utilized. None of the MEC related debris items recovered during the intrusive activities had a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 6 QA Resurvey indicates that the Weston Work Area 6 DGM data and results meet the work plan QA objectives.

# CONCLUSIONS AND RECOMMENDATIONS

The results of the Parker Flats Work Area 6 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Parker Flats Work Area 6 DGM QA Resurvey 195 QA targets were identified, 107 of which were identified within 3.0 feet of an existing Weston DGM target. However, none of these targets resulted in the discovery of a munitions debris related item with a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 6 QA Resurvey indicates that the Weston Work Area III DGM data and results meet the work plan QA objectives.

# STANDARD OF CARE AND WARRANTY

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were

### Mr. Frank Cota November 23, 2010 Draft Final Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 6 FORA DGM QA Resurvey Report Page 5 of 5

conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

### Respectfully, InDepth Corporation

Brin Huker Brian W. Hecker

Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables QA Resurvey Data Evaluation Figures

cc: file

### Table 1.

# DGM QA Resurvey Investigation Summary FORA Parker Flats Work Area 6 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Geophysical<br>Operation | Parker Flats<br>Area<br>Designation | FORA Grid<br>Designation | Total Area<br>Investigated<br>(sqft) | Number of<br>Targets |
|--------------------------|-------------------------------------|--------------------------|--------------------------------------|----------------------|
| QA Resurvey              | WA 6                                | C2F6I0                   | 10000                                | 14                   |
| QA Resurvey              | WA 6                                | C2G6E7                   | 5000                                 | 48                   |
| QA Resurvey              | WA 6                                | C2G8G4                   | 5000                                 | 26                   |
| QA Resurvey              | WA 6                                | C2G8H1                   | 5000                                 | 109                  |

### Table 2.

# DGM QA Target List FORA Parker Flats Work Area 6 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Darkor Elate |                | Easting    | Northing   | Target   |        |
|--------------|----------------|------------|------------|----------|--------|
|              | Torret Nome    |            |            | Response | Linito |
| Area         | Target Name    |            | (US Survey | Value    | Units  |
| Designation  |                | Feet)      | Feet)      | (Sum)    |        |
| Work Area 6  | WA6_C2G8H1_001 | 5742553.50 | 2128759.50 | 84.87    | mV     |
| Work Area 6  | WA6_C2G8H1_002 | 5742594.00 | 2128792.00 | 81.54    | mV     |
| Work Area 6  | WA6_C2G8H1_003 | 5742589.50 | 2128770.00 | 55.29    | mV     |
| Work Area 6  | WA6_C2G8H1_004 | 5742595.00 | 2128760.50 | 45.26    | mV     |
| Work Area 6  | WA6_C2G8H1_005 | 5742545.00 | 2128782.00 | 37.22    | mV     |
| Work Area 6  | WA6_C2G8H1_006 | 5742594.00 | 2128795.00 | 37.17    | mV     |
| Work Area 6  | WA6_C2G8H1_007 | 5742554.00 | 2128770.50 | 33.52    | mV     |
| Work Area 6  | WA6_C2G8H1_008 | 5742557.50 | 2128755.50 | 27.03    | mV     |
| Work Area 6  | WA6_C2G8H1_009 | 5742542.94 | 2128764.75 | 25.00    | mV     |
| Work Area 6  | WA6_C2G8H1_010 | 5742566.00 | 2128728.50 | 24.60    | mV     |
| Work Area 6  | WA6_C2G8H1_011 | 5742589.50 | 2128782.00 | 21.85    | mV     |
| Work Area 6  | WA6_C2G8H1_012 | 5742572.45 | 2128775.30 | 21.13    | mV     |
| Work Area 6  | WA6_C2G8H1_013 | 5742598.06 | 2128790.52 | 19.01    | mV     |
| Work Area 6  | WA6_C2G8H1_014 | 5742549.09 | 2128701.54 | 18.63    | mV     |
| Work Area 6  | WA6_C2G8G4_001 | 5742813.50 | 2128640.50 | 139.51   | mV     |
| Work Area 6  | WA6_C2G8G4_002 | 5742802.50 | 2128649.00 | 95.58    | mV     |
| Work Area 6  | WA6_C2G8G4_003 | 5742813.00 | 2128659.50 | 91.41    | mV     |
| Work Area 6  | WA6_C2G8G4_005 | 5742816.50 | 2128638.50 | 81.61    | mV     |
| Work Area 6  | WA6_C2G8G4_006 | 5742820.50 | 2128634.50 | 61.56    | mV     |
| Work Area 6  | WA6_C2G8G4_007 | 5742822.50 | 2128640.00 | 55.15    | mV     |
| Work Area 6  | WA6_C2G8G4_008 | 5742820.50 | 2128638.50 | 54.34    | mV     |
| Work Area 6  | WA6_C2G8G4_009 | 5742818.50 | 2128640.50 | 46.12    | mV     |
| Work Area 6  | WA6_C2G8G4_010 | 5742808.50 | 2128637.00 | 45.57    | mV     |
| Work Area 6  | WA6_C2G8G4_011 | 5742806.00 | 2128634.00 | 44.64    | mV     |
| Work Area 6  | WA6_C2G8G4_012 | 5742806.50 | 2128640.00 | 42.58    | mV     |
| Work Area 6  | WA6_C2G8G4_013 | 5742809.00 | 2128650.00 | 40.47    | mV     |
| Work Area 6  | WA6_C2G8G4_014 | 5742844.50 | 2128605.50 | 38.55    | mV     |
| Work Area 6  | WA6_C2G8G4_015 | 5742819.50 | 2128647.00 | 36.96    | mV     |
| Work Area 6  | WA6_C2G8G4_016 | 5742851.50 | 2128675.50 | 35.42    | mV     |
| Work Area 6  | WA6_C2G8G4_017 | 5742849.50 | 2128674.00 | 29.72    | mV     |
| Work Area 6  | WA6_C2G8G4_018 | 5742821.50 | 2128644.00 | 29.58    | mV     |
| Work Area 6  | WA6_C2G8G4_019 | 5742815.00 | 2128646.00 | 28.72    | mV     |
| Work Area 6  | WA6_C2G8G4_020 | 5742802.00 | 2128656.50 | 26.88    | mV     |

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### Table 2.

# DGM QA Target List FORA Parker Flats Work Area 6 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats<br>Area<br>Designation | Target Name    | Easting<br>(US Survey<br>Feet) | Northing<br>(US Survey<br>Feet) | Target<br>Response<br>Value<br>(Sum) | Units |
|-------------------------------------|----------------|--------------------------------|---------------------------------|--------------------------------------|-------|
| Work Area 6                         | WA6_C2G8G4_021 | 5742828.00                     | 2128646.00                      | 26.24                                | mV    |
| Work Area 6                         | WA6_C2G8G4_022 | 5742827.50                     | 2128639.00                      | 24.19                                | mV    |
| Work Area 6                         | WA6_C2G8G4_023 | 5742811.00                     | 2128653.00                      | 23.77                                | mV    |
| Work Area 6                         | WA6_C2G8G4_025 | 5742803.00                     | 2128646.00                      | 22.78                                | mV    |
| Work Area 6                         | WA6_C2G8G4_026 | 5742812.50                     | 2128651.50                      | 21.49                                | mV    |
| Work Area 6                         | WA6_C2G6E7_001 | 5741137.00                     | 2128425.50                      | 221.74                               | mV    |
| Work Area 6                         | WA6_C2G6E7_002 | 5741125.50                     | 2128412.00                      | 174.78                               | mV    |
| Work Area 6                         | WA6_C2G6E7_003 | 5741150.00                     | 2128425.50                      | 126.66                               | mV    |
| Work Area 6                         | WA6_C2G6E7_004 | 5741125.50                     | 2128408.50                      | 104.36                               | mV    |
| Work Area 6                         | WA6_C2G6E7_005 | 5741118.00                     | 2128418.50                      | 95.71                                | mV    |
| Work Area 6                         | WA6_C2G6E7_006 | 5741116.00                     | 2128416.50                      | 73.23                                | mV    |
| Work Area 6                         | WA6_C2G6E7_007 | 5741120.00                     | 2128414.50                      | 68.76                                | mV    |
| Work Area 6                         | WA6_C2G6E7_008 | 5741152.00                     | 2128423.00                      | 67.89                                | mV    |
| Work Area 6                         | WA6_C2G6E7_009 | 5741123.00                     | 2128462.00                      | 62.92                                | mV    |
| Work Area 6                         | WA6_C2G6E7_010 | 5741136.50                     | 2128413.50                      | 59.58                                | mV    |
| Work Area 6                         | WA6_C2G6E7_011 | 5741124.00                     | 2128433.50                      | 58.87                                | mV    |
| Work Area 6                         | WA6_C2G6E7_012 | 5741142.50                     | 2128425.00                      | 57.03                                | mV    |
| Work Area 6                         | WA6_C2G6E7_013 | 5741126.00                     | 2128431.00                      | 50.94                                | mV    |
| Work Area 6                         | WA6_C2G6E7_014 | 5741140.50                     | 2128406.00                      | 50.47                                | mV    |
| Work Area 6                         | WA6_C2G6E7_015 | 5741149.50                     | 2128462.50                      | 49.69                                | mV    |
| Work Area 6                         | WA6_C2G6E7_016 | 5741141.00                     | 2128474.00                      | 48.49                                | mV    |
| Work Area 6                         | WA6_C2G6E7_017 | 5741145.50                     | 2128402.50                      | 48.41                                | mV    |
| Work Area 6                         | WA6_C2G6E7_018 | 5741127.50                     | 2128431.00                      | 47.87                                | mV    |
| Work Area 6                         | WA6_C2G6E7_019 | 5741128.50                     | 2128433.00                      | 46.46                                | mV    |
| Work Area 6                         | WA6_C2G6E7_020 | 5741137.00                     | 2128410.50                      | 43.91                                | mV    |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project Name:                                     | FORA QA2 Resurvey                          | UXO Contractor               | LFR / Weston           | Equipment    | Serial Number |
|---|--|------------------------------|------------------------|--------------|---------------|
| Project Location:                                 | Monterey County, CA                        | Geophysical Contractor:      | Weston                 | EM61         | Weston        |
| Coordinate System:                                | NAD83 CS83 Zone 4 (US survey feet)         | Project Geophysicist:        | Matthew Gifford        | Allegro      | Weston        |
| Survey Area:                                      | Parker Flats Work Area 6                   | QC Geophysicist:             |                        | Magnetometer | Schonstedt    |
| Field Team:                                       |  | Regulatory POC:              |                        | All Metals   | White XLT     |
| Date: September 2010                              |  | QA Contractor:               | InDepth / ERRG         | Positioning  | Trimble RTK   |
| Team Leader Signature:                            |  | QA Geophysicist:             | Brian Hecker           |              | NA            |
| Project: FORA QA2 Resurvey                        | Survey Area:                               | Parker Flats Work Area 6     | Field Team:            | 0 Date:      |               |
| NOTE 1 - Anomaly Type: U = UXO, F = Frag, MD      | = Munitions Debris, S = Scrap, A = Small A | ms Ammunition, NC = No Co    | ontact, O = Other      |              |               |
| NOTE 2 - Target Azimuth: N = North, NW = North    | west, W = West, SW = Southwest, S = South  | n, SE = Southeast, E = East, | NE = Northeas          |              |               |
| NOTE 3 - Target Inclination: NU = Vertical Nose U | p, ND = Vertical Nose Down, INU = Inclined | Nose Up, IND = Inclined Nos  | se Down, H = Horizonta |              |               |
| Target Info                                       | Reacquisition Survey                       |                              |                        | Dig Results  |               |

| Target Info Reacquisition Surve |                        |          |         | tion Survey      | Dig Results                 |                             |                                |                              |                             |                         |                    |  |
|---------------------------------|------------------------|----------|---------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|--------------------|--|
| Target Name                     | Instrument<br>Response | Units    | Channel | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments           |  |
| WA6_C2G8H1_001                  | 84.9                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 1.0                         |                         | NAIL               |  |
| WA6_C2G8H1_002                  | 81.5                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | SURFACE                     |                         | NAIL               |  |
| WA6_C2G8H1_003                  | 55.3                   | Stack mV | Ch3     |                  | NC                          |                             |                                |                              |                             |                         |                    |  |
| WA6_C2G8H1_004                  | 45.3                   | Stack mV | Ch3     |                  | А                           | 0.10                        |                                |                              | 2.0                         | 1.0                     | BRASS              |  |
| WA6_C2G8H1_005                  | 37.2                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | SURFACE                     |                         | NAIL               |  |
| WA6_C2G8H1_006                  | 37.2                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 1.0                         |                         | NAIL               |  |
| WA6_C2G8H1_007                  | 33.5                   | Stack mV | Ch3     |                  | NC                          |                             |                                |                              |                             |                         |                    |  |
| WA6_C2G8H1_008                  | 27.0                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 12.0                        |                         | NAIL               |  |
| WA6_C2G8H1_009                  | 25.0                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 1.0                         |                         | NAIL               |  |
| WA6_C2G8H1_010                  | 24.6                   | Stack mV | Ch3     |                  | NC                          |                             |                                |                              |                             |                         |                    |  |
| WA6_C2G8H1_011                  | 21.9                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 12.0                        |                         | NAIL               |  |
| WA6_C2G8H1_012                  | 21.1                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | NAIL               |  |
| WA6_C2G8H1_013                  | 19.0                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 24.0                        |                         | NAIL               |  |
| WA6_C2G8H1_014                  | 18.6                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | SCREW              |  |
| WA6_C2G8G4_001                  | 139.5                  | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | NAIL               |  |
| WA6_C2G8G4_002                  | 95.6                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | NAIL               |  |
| WA6_C2G8G4_003                  | 91.4                   | Stack mV | Ch3     |                  | 0                           | 0.02                        |                                |                              | 4.0                         |                         | NAIL AND STEEL ROD |  |
| WA6_C2G8G4_005                  | 81.6                   | Stack mV | Ch3     |                  | 0                           | 0.02                        |                                |                              | 6.0                         |                         | NAIL               |  |
| WA6_C2G8G4_006                  | 61.6                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | NAIL               |  |
| WA6_C2G8G4_007                  | 55.1                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 2.0                         |                         | NAIL               |  |
| WA6_C2G8G4_008                  | 54.3                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 5.0                         |                         | NAIL               |  |
| WA6_C2G8G4_009                  | 46.1                   | Stack mV | Ch3     |                  | 0                           | 0.01                        |                                |                              | 3.0                         |                         | NAIL               |  |
| WA6_C2G8G4_010                  | 45.6                   | Stack mV | Ch3     |                  | NC                          |                             |                                |                              |                             |                         |                    |  |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:            | oject: FORA QA2 Resurvey Survey Area: Parker Flats Work Area 6 Field Team: 0 Date: |                |                |  |                             |                             |                                |                              |                             |                         |  |
|---------------------|--|----------------|----------------|--|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|--|
| NOTE 1 - Anomaly T  | Type: U = UXO, F   | = Frag, MD =   | Munitions Del  | oris, S = Scrap                              | , A = Small Arn             | ns Ammunition               | , NC = No Cor                  | ntact, O = Other             |                             |                         |  |
| NOTE 2 - Larget Azi | imuth: N = North,  | NW = Northw    | est, W = West, | , SW = Southwe                               | est, S = South,             | SE = Southea                | st, E = East, N                | IE = Northeas                | ta                          |                         |  |
|                     | arget Info   | ILCAI NUSE OP. | Reacquisi      | tion Survey                                  |                             | 105e up, inv -              |                                |                              | Di                          | a Results               |  |
| Target Name         | Instrument<br>Response   | Units          | Channel        | Response<br>(mV)                             | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments   |
| WA6_C2G8G4_011      | 44.6   | Stack mV       | Ch3            |  | 0                           | 0.01                        |                                |                              | 6.0                         |                         | NAIL   |
| WA6_C2G8G4_012      | 42.6   | Stack mV       | Ch3            |  | NC                          |                             |                                |                              |                             |                         |  |
| WA6_C2G8G4_013      | 40.5   | Stack mV       | Ch3            |  | 0                           | 0.01                        |                                |                              | 7.0                         |                         | NAIL   |
| WA6_C2G8G4_014      | 38.5   | Stack mV       | Ch3            | <u> </u>                                     | 0                           | 0.50                        |                                | <u>ا</u> ا                   | 12.0                        |                         | DOOR HINGE   |
| WA6_C2G8G4_015      | 37.0   | Stack mV       | Ch3            |  | 0                           | 0.02                        | <u> </u>                       | ļ!                           | 2.0                         |                         | NAIL   |
| WA6_C2G8G4_016      | 35.4   | Stack mV       | Ch3            |  | NC                          | ļ'                          | ļ                              | ļ!                           | ļ                           |                         |  |
| WA6_C2G8G4_017      | 29.7   | Stack mV       | Ch3            | ļ!   | NC                          | ļ'                          | <b></b>                        | ļ!                           | Į                           |                         |  |
| WA6_C2G8G4_018      | 29.6   | Stack mV       | Ch3            | ļ!   | 0                           | 0.02                        | <b></b>                        | ļ!                           | 2.0                         |                         | NAIL   |
| WA6_C2G8G4_019      | 28.7   | Stack mV       | Ch3            | ļ!   | 0                           | 0.02                        | <b></b>                        | ļ                            | 8.0                         |                         | NAIL   |
| WA6_C2G8G4_020      | 26.9   | Stack mV       | Ch3            | ļ!   | 0                           | 0.01                        | <b></b>                        | ļ                            | 2.0                         |                         | WIRE   |
| WA6_C2G8G4_021      | 26.2   | Stack mV       | Ch3            | ļļ   | NC                          | ļ'                          | <b></b>                        | ļļ                           | <b> </b>                    |                         |  |
| WA6_C2G8G4_022      | 24.2   | Stack mV       | Ch3            | <u>                                     </u> | 0                           | 0.01                        | <b></b>                        | ļ!                           | 5.0                         |                         | PART OF NAIL   |
| WA6_C2G8G4_023      | 23.8   | Stack mV       | Ch3            | ļ!   | А                           | 0.10                        | <b></b>                        | ļ                            | 12.0                        | 2.0                     | BRASS  |
| WA6_C2G8G4_025      | , 22.8   | Stack mV       | Ch3            | ļ!   | NC                          | ļ'                          | <b></b>                        | ļ                            | Į                           |                         |  |
| WA6_C2G8G4_026      | , 21.5   | Stack mV       | Ch3            | ļļ   | NC                          | ļ'                          | <b></b>                        | ļļ                           | Į                           |                         |  |
| WA6_C2G6E7_001      | 221.7  | Stack mV       | Ch3            | 90.0   | 0                           | 0.5                         | -                              | -                            | 8"                          | 2A                      | Metal Rail - 12" Long                                |
| WA6_C2G6E7_002      | 174.8  | Stack mV       | Ch3            | 122.0  | 0                           | 1.0                         | -                              | -                            | 3"                          |                         | Scrap metal- 8" long                                 |
| WA6_C2G6E7_003      | 126.7  | Stack mV       | Ch3            | NC   | - '                         |                             | -                              | -                            | -                           |                         |  |
| WA6_C2G6E7_004      | 104.4  | Stack mV       | Ch3            | NC   |                             | - '                         | -                              | -                            | -                           |                         | I think it was the same anomaly as 002               |
| WA6_C2G6E7_005      | 95.7   | Stack mV       | Ch3            | 30.0   | 0                           | 0.0                         | -                              | -                            | 3"                          |                         | Scrap Metal  |
| WA6_C2G6E7_006      | 73.2   | Stack mV       | Ch3            | NC   | - '                         |                             | -                              | -                            | -                           |                         | No Hit, old dig; perhaps a QC re6sit                 |
| WA6_C2G6E7_007      | 68.8   | Stack mV       | Ch3            | 20.0   | 0                           | - '                         | -                              | -                            | 0"                          |                         | Very small metal sha6ngs/rust-didn't chase-to small  |
| WA6_C2G6E7_008      | 67.9   | Stack mV       | Ch3            | 75.0   |                             | 0.5                         | -                              | -                            | 2"                          |                         | Thick metal shim of some sort                        |
| WA6_C2G6E7_009      | 62.9   | Stack mV       | Ch3            | 34.0   | 0                           | 0.2                         | -                              | -                            | 3"                          | 23A                     | Spark Plug   |
| WA6_C2G6E7_010      | 59.6   | Stack mV       | Ch3            | 35.0   | 0                           | 0.1                         | -                              |                              | 3"                          | 25A                     | Aluminum scrap                                       |
| WA6_C2G6E7_011      | 58.9   | Stack mV       | Ch3            | 19.0   | 0                           | 0.1                         | -                              | -                            | 2"                          |                         | Scrap Metal  |
| WA6 C266F7 012      | 57.0   | Stack mV       | Ch3            | 15.0   | 0                           | - '                         | -                              | _ I                          | 3"                          |                         | No item found in the hole or spoils but reading gone |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

#### Former Fort Ord, Parker Flats

| Project:              | pject: FORA QA2 Resurvey Survey Area: Parker Flats Work Area 6 Field Team: 0 Date: |               |                 |                 |                 |                |                  |                    |            |               |  |
|-----------------------|--|---------------|-----------------|-----------------|-----------------|----------------|------------------|--------------------|------------|---------------|--|
| NOTE 1 - Anomaly T    | Type: U = UXO, F   | = Frag, MD =  | Munitions De    | bris, S = Scrap | , A = Small Arn | ns Ammunition  | , NC = No Cor    | itact, O = Other   |            |               |  |
| NOTE 2 - Target Azi   | muth: N = North,   | NW = Northw   | est, W = West   | , SW = Southw   | est, S = South, | SE = Southea   | ast, E = East, N | IE = Northeas      |            |               |  |
| NOTE 3 - Target Incli | ination: NU = Ver  | tical Nose Up | , ND = Vertical | Nose Down, IN   | NU = Inclined N | lose Up, IND = | Inclined Nose    | Down, H = Horizont | а          |               |  |
| Т                     | arget Info   |               | Reacquisi       | tion Survey     |                 | •              |                  |                    | Die        | g Results     |  |
|                       |  |               |                 |                 | Anomaly         | Approx.        | Azimuth          |                    | Depth to   |               |  |
| Target Name           | Instrument   | Units         | Channel         | Response        | Type            | Weiaht         | of nose          | Inclination of     | top        | Digital Photo | Comments   |
|                       | Response   |               |                 | (mV)            | (note 1)        | (Lbs.)         | (note 2)         | nose (note 3)      | (inches)   | Number        |  |
|                       |  | Stack mV      | Ch3             | 0.0             | 0               | 8.0            |                  |                    | <u>ר</u> " |               | can ton  |
| WA6_C2G6E7_013        | 50.9   | SIDCK IIIV    | CIIJ            | 7.0             | 0               | 0.0            | -                | -                  | Z          |               | cantop   |
| WA6_C2G6E7_014        | 50.5   | Stack mV      | Ch3             | 35.0            | 0               | -              | -                | -                  | 3"         |               | Concrete   |
| WA6_C2G6E7_015        | 49.7   | Stack mV      | Ch3             | 60.0            | 0               | -              | -                | -                  | 6"         |               | 6" Long wire                                       |
| WA6_C2G6E7_016        | 48.5   | Stack mV      | Ch3             | 38.0            | 0               | 0.1            | -                | -                  | 3"         |               | screw  |
| WA6 C2G6E7 017        | 48.4   | Stack mV      | Ch3             | 8.0             | 0               | -              | -                | -                  | 0.0        |               | Next to asphalt                                    |
| WA6 C2G6E7 018        | 47.9   | Stack mV      | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 2"         |               | Scrap metal  |
| <br>WA6_C2G6E7_019    | 46.5   | Stack mV      | Ch3             | 19.0            | 0               | -              | -                |                    | 3"         |               | No Item found- reading gone after hole dug         |
| WA6_C2G6F7_020        | 43.9   | Stack mV      | Ch3             | 35.0            | 0               | 0.1            | -                |                    | 2"         |               | Nail   |
| WA6_C2G6E7_021        | 41.0   | Stack mV      | Ch3             | 2.0             | 0               | _              | _                |                    | 2"         |               | No item found small reading gone after hole dug    |
| WA6_C2G6E7_021        | 41.5   | Stack mV      | Ch3             | NC              | -               | -              | -                | -                  | -          |               | No item found, close to #8                         |
| WA6_C2G6E7_022        | 41.0   | Stack mV      | Ch3             | 50.0            | 0               | 0.1            | _                | _                  | 2"         |               | Scran Steel  |
| WA6_C2G6E7_024        | 39.4   | Stack mV      | Ch3             | 70.0            | 0               | 0.1            | -                |                    | 2"         |               | Cotter pin   |
| WA6_C2G6E7_024        | 38.0   | Stack mV      | Ch3             | 25.0            | 0               | -              | -                | -                  | 2"         |               | Concrete chunks                                    |
| WA6_C2G6E7_026        | 34.5   | Stack mV      | Ch3             | 15.0            | 0               | 03             | -                |                    | 6"         |               |  |
| WA6_C2G6E7_027        | 33.7   | Stack mV      | Ch3             | 45.0            | 0               | 0.5            | -                | -                  | 2"         | 1             | Bottle can   |
| WA6_C2G6E7_028        | 32.9   | Stack mV      | Ch3             | 9.0             | 0               | 0.1            | -                | -                  | 4"         |               | Scap: small pieces of can                          |
| WA6_C2G6E7_029        | 32.6   | Stack mV      | Ch3             | 28.0            | 0               | 0.5            | -                | -                  | 4"         |               | Scrap steel  |
| WA6_C2G6E7_030        | 30.0   | Stack mV      | Ch3             | 20.0            | 0               | -              | -                | -                  | 2"         |               | Rusty dirt, no other item found                    |
| WA6_C2G6E7_031        | 29.1   | Stack mV      | Ch3             | 25.0            | 0               | 0.3            | -                | -                  | 3"         |               | Part of can  |
| WA6 C2G6E7 032        | 29.0   | Stack mV      | Ch3             | 2.0             | NC              | -              | -                | -                  |            |               | Same as #48  |
| WA6_C2G6E7_033        | 28.8   | Stack mV      | Ch3             | NC              | -               | -              | -                | -                  | -          |               | No Reading, close to our dig for #29               |
| WA6_C2G6E7_034        | 28.4   | Stack mV      | Ch3             | 10.0            | 0               | 0.1            | -                | -                  | 0.0        |               | Nail   |
| WA6 C2G6E7 035        | 28.2   | Stack mV      | Ch3             | 24.0            | 0               | 0.1            | -                | -                  | 1"         |               | Penny  |
| WA6_C2G6E7_036        | 27.8   | Stack mV      | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 1"         |               | Rusty can  |
| WA6 C2G6E7 037        | 27.5   | Stack mV      | Ch3             | 35.0            | 0               | 0.1            | -                | -                  | 2"         | 24A           | Cable clamp  |
| WA6 C2G6E7 038        | 27.4   | Stack mV      | Ch3             | NC              | -               | -              | -                | -                  |            |               | Contacted when digging #39 and removed; rusty cans |
| WA6 C2G6E7 039        | 26.8   | Stack mV      | Ch3             | 26.0            | 0               | 0.4            | -                | -                  | 3"         |               | Rusty cans   |
| WA6 C2G6E7 040        | 26.1   | Stack mV      | Ch3             | 34.0            | 0               | 0.3            | -                | -                  | 4"         |               | Wire mesh  |
| WA6 C2G6E7 041        | 25.7   | Stack mV      | Ch3             | 21.0            | 0               | 0.2            | -                | -                  | 1"         |               | Screw  |
| WA6 C2G6E7 042        | 24.9   | Stack mV      | Ch3             | NC              | 0               | -              | -                | -                  |            |               | Same as #40, anomaly picks to close                |
| WA6 C2G6E7 043        | 24.0   | Stack mV      | Ch3             | 20.0            | 0               | -              | -                | -                  | 6"         | 1             | Reading gone after dig, dirt very rusty            |
| WA6_C2G6E7 044        | 22.4   | Stack mV      | Ch3             | 56.0            | 0               | 0.1            | -                | -                  | 0.0        | 1             | 10" of twisted wire                                |
| WA6 C2G6E7 045        | 22.0   | Stack mV      | Ch3             | 18.0            | 0               | 0.2            | -                | -                  | 2"         | 1             | Nail   |
| WA6 C2G6E7 046        | 21.2   | Stack mV      | Ch3             | 12.0            | 0               | 0.2            | -                | -                  |            | 1             | small metal bits                                   |
| WA6 C2G6E7 047        | 21.0   | Stack mV      | Ch3             | 15.0            | 0               | 0.2            | -                | -                  | -          |               | small metal bits like #46                          |
| WA6 C2G6E7 048        | 20.1   | Stack mV      | Ch3             | 90.0            | 0               | 0.1            | -                | -                  | 3"         | 1             | 12" Long wire                                      |
| WA6 C2F6I0 001        | 672.9  | Stack mV      | Ch3             | 1600.0          | 0               | 0.2            | -                | -                  | 0.0        | 9A            | Coke can   |
| WA6 C2F6I0 002        | 220.4  | Stack mV      | Ch3             | 110.0           | 0               | 0.2            | -                | -                  | 10"        | 10A           | Scrap aluminum and coke can                        |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:             | FORA QA2 Res     | urvey         |                 | Survey Area:    |                 | Parker Flats \ | Nork Area 6      | Field Team:         | (         | 0 Date:       |   |
|----------------------|------------------|---------------|-----------------|-----------------|-----------------|----------------|------------------|---------------------|-----------|---------------|---|
| NOTE 1 - Anomaly T   | ype: U = UXO, F  | = Frag, MD =  | - Munitions De  | bris, S = Scrap | , A = Small Arr | ns Ammunitior  | n, NC = No Co    | ntact, O = Other    |           |               |   |
| NOTE 2 - Target Ázi  | muth: N = North, | NW = Northv   | vest, W = West  | , SW = Southw   | est, S = South  | , SE = Southea | ast, E = East, N | VE = Northeas       |           |               |   |
| NOTE 3 - Target Incl | nation: NU = Ver | tical Nose Up | . ND = Vertical | Nose Down, I    | NU = Inclined N | vose Up, IND = | - Inclined Nose  | e Down, H = Horizon | ta        |               |   |
| Т                    | arget Info       |               | Reacquisi       | tion Survey     | l l             |                |                  |                     | Di        | a Results     |   |
|                      | J.               |               |                 | <b>_</b>        | Anomaly         | Approx         | Azimuth          |                     | Depth to  |               |   |
| Towned Norma         | Instrument       | Unite         | Channel         | Response        | Ture            | Appiox.        | A£ maga          | Inclination of      | Deptilito | Digital Photo | Commonto  |
| Target Name          | Response         | Units         | Channel         | (mV)            | туре            | weight         | ornose           | nose (note 3)       | τορ       | Number        | Comments  |
|                      |                  |               |                 |                 | (note 1)        | (Lbs.)         | (note 2)         |                     | (inches)  |               |   |
| WA6_C2F6I0_003       | 218.8            | Stack mV      | Ch3             | 255.0           | 0               | 0.1            | -                | -                   | 6"        | 3A            | Old tin beer can  |
| WA6_C2F6I0_004       | 123.9            | Stack mV      | Ch3             | 158.0           | 0               | 0.1            | -                | -                   | 7"        |               | Coke can  |
| WA6_C2F6I0_005       | 122.0            | Stack mV      | Ch3             | 130.0           | 0               | 0.1            | -                | -                   | 4"        | 1A            | Coke can  |
| WA6_C2F6I0_006       | 120.0            | Stack mV      | Ch3             | 180.0           | 0               | 0.1            | -                | -                   | 2"        |               | Pull tab and can  |
| WA6_C2F6I0_007       | 119.0            | Stack mV      | Ch3             | 89.0            | 0               | 0.1            | -                | -                   | 3"        |               | Pull Ttab and a bunch of wire                                       |
| WA6_C2F6I0_008       | 100.6            | Stack mV      | Ch3             | 79.0            | 0 & A           | 0.1            | -                | -                   | 5"        | 12A           | Pull tab and 306 brass and part of can                              |
| WA6_C2F6I0_009       | 98.4             | Stack mV      | Ch3             | 196.0           | 0               | 0.1            | -                | -                   | 0"        | 11A           | Thin Rusted metal   |
| WA6_C2F6I0_010       | 92.0             | Stack mV      | Ch3             | 190.0           | 0               | 0.2            | -                | -                   | 3"        | 13A           | D cell battery  |
| WA6_C2F6I0_011       | 91.6             | Stack mV      | Ch3             | 120.0           | 0               | 0.2            | -                | -                   | 3"        |               | 8" piece of copper wire   |
| WA6_C2F6I0_012       | 86.0             | Stack mV      | Ch3             | 45.0            | 0               | 0.2            | -                | -                   | 4"        |               | Pull tab and can top  |
| WA6_C2F6I0_013       | 68.2             | Stack mV      | Ch3             | 74.0            | 0               | 0.1            | -                | -                   | 6"        |               | Busted up can   |
| WA6_C2F6I0_014       | 66.5             | Stack mV      | Ch3             | 22.0            | 0               | 0.2            | -                | -                   | 4"        | 19A           | Can lid   |
| WA6_C2F6I0_015       | 63.4             | Stack mV      | Ch3             | 45.0            | 0               | 0.1            | -                | -                   | 2"        |               | Brocken up rusted metal   |
| WA6_C2F6I0_016       | 62.0             | Stack mV      | Ch3             | 125.0           | 0               | 0.1            | -                | -                   | 3"        | 16A           | Beer can  |
| WA6_C2F6I0_017       | 60.9             | Stack mV      | Ch3             | 55.0            | 0               | 0.1            | -                | -                   | 2"        |               | Can   |
| WA6_C2F6I0_018       | 59.0             | Stack mV      | Ch3             | 28.0            | 0               | 0.1            | -                | -                   | 4"        |               | Multiple pieces of wire   |
| WA6_C2F6I0_019       | 58.7             | Stack mV      | Ch3             | 18.0            | A               | 0.1            | -                | -                   | 6"        | 7A            | Blank   |
| WA6_C2F6I0_020       | 58.1             | Stack mV      | Ch3             | 2440.0          | 0               | 0.1            | -                | -                   | 0"        | 22A           | 6enna sausage can   |
| WA6_C2F6I0_021       | 57.7             | Stack mV      | Ch3             | 75.0            | 0               | 0.1            | -                | -                   | 2"        |               | Nail  |
| WA6_C2F6I0_022       | 56.4             | Stack mV      | Ch3             | 35.0            | 0               | 0.1            | -                | -                   | 2"        |               | Pull tab  |
| WA6_C2F6I0_023       | 56.3             | Stack mV      | Ch3             | 0.0             | NC              | -              | -                | -                   | -         |               | Shared contact with #6  |
| WA6_C2F6I0_024       | 54.4             | Stack mV      | Ch3             | 44.0            | 0               | 0.1            | -                | -                   | 2"        |               | Pull tab  |
| WA6_C2F6I0_025       | 51.0             | Stack mV      | Ch3             | 45.0            | 0               | 0.1            | -                | -                   | 6"        | Coke o        | an, stopped taking pics of junk at this point. Will take a group ph |
| WA6_C2F6I0_026       | 50.9             | Stack mV      | Ch3             | 289.0           | 0               | 0.1            | -                | -                   | 0"        | 15A           | Coke can  |
| WA6_C2F6I0_027       | 50.7             | Stack mV      | Ch3             | 30.0            | 0               | 0.1            | -                | -                   | 1"        |               | Scrap metal   |
| WA6_C2F6I0_028       | 49.2             | Stack mV      | Ch3             | -3.0            | NC              | -              | -                | -                   | -         |               | NC  |
| WA6_C2F6I0_029       | 49.1             | Stack mV      | Ch3             | 45.0            | 0               | 0.1            | -                | -                   | 5"        |               | Aluminum scrap  |
| WA6_C2F6I0_030       | 48.4             | Stack mV      | Ch3             | 65.0            | 0               | 0.1            | -                | -                   | 3"        |               | Part of can   |
| WA6_C2F6I0_031       | 48.1             | Stack mV      | Ch3             | 135.0           | 0               | 0.1            | -                | -                   | 4"        |               | Metal latch   |
| WA6_C2F6I0_032       | 46.3             | Stack mV      | Ch3             | 360.0           | 0               | 0.1            | -                | -                   | 2"        |               | Foil and wire   |
| WA6_C2F6I0_033       | 45.7             | Stack mV      | Ch3             | 13.0            | 0               | 0.1            | -                | -                   | 2"        |               | Scrap metal   |
| WA6_C2F6I0_034       | 45.3             | Stack mV      | Ch3             | 56.0            | 0               | 0.1            | -                | -                   | 3"        | 6A            | Nut   |
| WA6_C2F6I0_035       | 45.0             | Stack mV      | Ch3             | 12.0            | 0               | 0.1            | -                | -                   | 0"        |               | Very close to #45 - Pull tabs found                                 |
| WA6_C2F6I0_036       | 44.0             | Stack mV      | Ch3             | 40.0            | 0               | 0.1            | -                | -                   | 0"        |               | More pull tabs  |
| WA6_C2F6I0_037       | 43.8             | Stack mV      | Ch3             | 28.0            | 0               | 0.1            | -                | -                   | 4"        | 5A            | Bolt  |
| WA6_C2F6I0_038       | 42.3             | Stack mV      | Ch3             | 35.0            | 0               | 0.3            | -                | -                   | 6"        |               | 18" twisted wire bundle   |
| WA6_C2F6I0_039       | 41.7             | Stack mV      | Ch3             | 125.0           | 0               | 0.1            | -                | -                   | 2"        |               | 12" twisted wire  |
| WA6_C2F6I0_040       | 40.8             | Stack mV      | Ch3             | 25.0            | 0               | 0.1            | -                | -                   | 2"        |               | Scrap metal   |
| WA6_C2F6I0_041       | 40.7             | Stack mV      | Ch3             | 30.0            | 0               | 0.1            | -                | -                   | 6"        |               | Wire  |
| WA6_C2F6I0_042       | 40.3             | Stack mV      | Ch3             | 25.0            | 0               | -              | -                | -                   | 2"        |               | Nail  |
| WA6_C2F6I0_043       | 40.2             | Stack mV      | Ch3             | 53.0            | 0               | 0.2            | -                | -                   | 3"        |               | Wire and Pull Tabs  |
| WA6_C2F6I0_044       | 40.0             | Stack mV      | Ch3             | 28.0            | 0               | 0.1            | -                | -                   | 8"        |               | Dug till reading gone- rusty dirt                                   |
| WA6_C2F6I0_045       | 36.5             | Stack mV      | Ch3             | -3.0            | 0               | 0.1            | -                | -                   | 0"        |               | Pull tags on surface  |
| WA6_C2F6I0_046       | 35.6             | Stack mV      | Ch3             | 8.0             | 0               | 0.1            | -                | -                   | 6"        |               | No reading, maybe a surface item that's gone noe                    |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:              | Project: FORA QA2 Resurvey Survey Area: Parker Flats Work Area 6 Field Team: 0 Date: |                |                 |                 |                 |                |                  |                    |          |               |  |
|-----------------------|--|----------------|-----------------|-----------------|-----------------|----------------|------------------|--------------------|----------|---------------|--|
| NOTE 1 - Anomaly T    | ype: U = UXO, F  | = Frag, MD =   | Munitions De    | bris, S = Scrap | A = Small Arn   | ns Ammunition  | n, NC = No Cor   | itact, O = Other   |          |               |  |
| NOTE 2 - Target Azi   | muth: N = North,   | NW = Northw    | est, W = West   | , SW = Southw   | est, S = South, | SE = Southea   | ast, E = East, N | E = Northeas       |          |               |  |
| NOTE 3 - Target Incli | nation: NU = Ver   | tical Nose Up, | , ND = Vertical | Nose Down, IN   | U = Inclined N  | lose Up, IND = | Inclined Nose    | Down, H = Horizont | а        |               |  |
| Т                     | arget Info   |                | Reacquisi       | tion Survey     |                 |                |                  |                    | Dio      | Results       |  |
|                       | 5  |                |                 |                 | Anomaly         | Approx         | Azimuth          |                    | Depth to |               |  |
| Target Name           | Instrument   | Unite          | Channel         | Response        | Type            | Woight         | of poso          | Inclination of     | top      | Digital Photo | Commonts                                 |
| rarget Name           | Response   | Units          | Channel         | (mV)            | туре            | weight         | ornose           | nose (note 3)      | top      | Number        | comments                                 |
|                       | -  |                |                 |                 | (note 1)        | (Lbs.)         | (note 2)         |                    | (inches) |               |  |
| WA6_C2F6I0_047        | 35.5   | Stack mV       | Ch3             | 45.0            | 0               | 0.1            | -                | -                  | 0"       |               | Nail                                     |
| WA6_C2F6I0_048        | 35.5   | Stack mV       | Ch3             | 35.0            | 0               | 0.1            | -                | -                  | 3"       |               | Can lid                                  |
| WA6_C2F6I0_049        | 35.4   | Stack mV       | Ch3             | 15.0            | 0               | 0.0            | -                | -                  | 8"       |               | Item unidenified - all broke up and rust |
| WA6_C2F6I0_050        | 34.9   | Stack mV       | Ch3             | 26.0            | 0               | 0.1            | -                | -                  | 3"       |               | Pull tab and ring                        |
| WA6_C2F6I0_051        | 33.9   | Stack mV       | Ch3             | 30.0            | 0               | 0.1            | -                | -                  | 0"       |               | Pull tab                                 |
| WA6_C2F6I0_052        | 33.2   | Stack mV       | Ch3             | 18.0            | 0               | 0.1            | -                | -                  | 2"       |               | Pull tab                                 |
| WA6_C2F6I0_053        | 33.1   | Stack mV       | Ch3             | 23.0            | 0               | 0.1            | -                | -                  | 4"       | 14A           | Coke can                                 |
| WA6_C2F6I0_054        | 32.7   | Stack mV       | Ch3             | 218.0           | 0               | 0.1            | -                | -                  | 4"       | 4A            | Hing                                     |
| WA6_C2F6I0_055        | 32.4   | Stack mV       | Ch3             | 35.0            | 0               | 0.1            | -                | -                  | 2"       |               | Pull tab                                 |
| WA6_C2F6I0_056        | 31.4   | Stack mV       | Ch3             | 32.0            | 0               | 0.1            | -                | -                  | 4"       |               | Nail                                     |
| WA6_C2F6I0_057        | 31.4   | Stack mV       | Ch3             | NC              | -               | -              | -                | -                  | -        |               | No reading near tree                     |
| WA6_C2F6I0_058        | 30.7   | Stack mV       | Ch3             | NC              | -               | -              | -                | -                  | -        |               | Same as #57                              |
| WA6_C2F6I0_059        | 30.7   | Stack mV       | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 2"       |               | Pull tab                                 |
| WA6_C2F6I0_060        | 30.6   | Stack mV       | Ch3             | 35.0            | 0               | 0.2            | -                | -                  | 6"       | 21A           | Tie down anchor                          |
| WA6_C2F6I0_061        | 29.6   | Stack mV       | Ch3             | 28.0            | 0               | 0.1            | -                | -                  | 5"       |               | Shredded Coke can                        |
| WA6_C2F6I0_062        | 29.4   | Stack mV       | Ch3             | 30.0            | 0               | 0.1            | -                | -                  | 4"       |               | Wire                                     |
| WA6_C2F6I0_063        | 29.3   | Stack mV       | Ch3             | 43.0            | 0               | -              | -                | -                  | 6"       |               | 6" of wire                               |
| WA6_C2F6I0_064        | 29.3   | Stack mV       | Ch3             | 40.0            | 0               | 0.1            | -                | -                  | 6"       |               | Pull tab, wire and rusted metal          |
| WA6_C2F6I0_065        | 29.2   | Stack mV       | Ch3             | 25.0            | 0               | 0.1            | -                | -                  | 4"       |               | Pull tab                                 |
| WA6_C2F6I0_066        | 29.0   | Stack mV       | Ch3             | 35.0            | 0               | 0.1            | -                | -                  | 4"       |               | Pull tab                                 |
| WA6_C2F6I0_067        | 28.5   | Stack mV       | Ch3             | 5.0             | 0               | -              | -                | -                  | 6"       |               | Hole dug, no reading, no item            |
| WA6_C2F6I0_068        | 28.1   | Stack mV       | Ch3             | -3.0            | NC              | -              | -                | -                  | -        |               | NC, might have been same as "38          |
| WA6_C2F6I0_069        | 28.1   | Stack mV       | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 1"       |               | Scrap metal                              |
| WA6_C2F6I0_070        | 28.1   | Stack mV       | Ch3             | 22.0            | 0               | 0.1            | -                | -                  | 3"       | 5A            | scrap metal                              |
| WA6_C2F6I0_071        | 28.0   | Stack mV       | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 3"       |               | Scrap metal and foil                     |
| WA6_C2F6I0_072        | 28.0   | Stack mV       | Ch3             | 31.0            | 0               | 0.1            | -                | -                  | 4"       |               | 4" Long wire                             |
| WA6_C2F6I0_073        | 27.4   | Stack mV       | Ch3             | 38.0            | 0               | 0.1            | -                | -                  | 0"       |               | Wire                                     |
| WA6_C2F6I0_074        | 27.2   | Stack mV       | Ch3             | 20.0            | 0               | -              | -                | -                  | 2"       |               | Wire                                     |
| WA6_C2F6I0_075        | 26.6   | Stack mV       | Ch3             | 25.0            | 0               | 0.1            | -                | -                  | 0"       | 101           | Metal washer on surface                  |
| WA6_C2F6I0_076        | 26.5   | Stack mV       | Ch3             | 32.0            | 0               | 0.1            | -                | -                  | 4"       | 18A           | Ground wire bracket                      |
| WA6_C2F6I0_077        | 26.5   | Stack mV       | Ch3             | 27.0            | 0               | 0.1            | -                | -                  | 5"       |               | Link from chain                          |
| WA6_C2F6I0_078        | 26.0   | Stack mV       | Ch3             | 9.0             | 0               | 0.1            | -                | -                  | 0"       |               | Metal scrap                              |
| WA6_C2F6I0_079        | 26.0   | Stack mV       | Ch3             | 9.0             | 0               | -              | -                | -                  | 10"      |               | Dug to 10" with reading gone, no item    |
| WA6_C2F6I0_080        | 25.7   | Stack mV       | Ch3             | -12.0           | NC              | -              | -                | -                  | -        |               | NC, to close to #53 and #10, same hits   |
| WA6_C2F6I0_081        | 25.7   | Stack mV       | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 0"       |               | Scrap metal                              |
| WA6_C2F6I0_082        | 25.4   | Stack mV       | Ch3             | 15.0            | 0               | 0.1            | -                | -                  | U"       | <u> </u>      |  |
| WA6_C2F6I0_083        | 25.2   | Stack mV       |                 | 35.0            |                 | 0.1            | -                | -                  | 4        | <u>├</u>      | Aluminum scrap 4" long                   |
| WA6_C2F6I0_084        | 25.1   | Stack mV       |                 | 4.0             | NC              | -              | -                | -                  | -        | <u> </u>      | Next to road, no hit                     |
| WA6_C2F6I0_085        | 25.0   | Stack mV       | Ch3             | 54.0            | 0               | 0.1            | -                | -                  | 6"<br>(" | <u> </u>      | wire                                     |
| WA6_C2F6I0_086        | 24.9   | Stack mV       | Ch3             | 20.0            | 0               | 0.1            | -                | -                  | 4"       | <u> </u>      | Nail                                     |
| WA6_C2F6I0_087        | 24.5   | Stack mV       | Ch3             | 30.0            | 0               | 0.1            | -                | -                  | 4"       | +             | Old rusty beer can                       |
| WA6_C2F6I0_088        | 24.0   | Stack mV       | Ch3             | 80.0            | 0               | 0.1            | -                | -                  | 4"       | 204           | Nall<br>Destial grand de func            |
| WA6_C2F6I0_089        | 23.7   | Stack mV       |                 | 32.0            | IVID            | 0.1            | -                | -                  | 4"       | ZUA           | Partial grenade tuze                     |
| WA6 C2F6IU 090        | 23.7   | STACK MV       | L UD3           | 20.0            |                 | 0.1            |                  | -                  | 5        | 1             | Pulitab                                  |

QA Intrusive Investigation Results

FORA Parker Flats Work Area 6 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project:             | ct: FORA QA2 Resurvey Survey Area: Parker Flats Work Area 6 Field Team: 0 Date: |               |                |                  |                             |                             |                                |                              |                             |                         |                                       |  |
|----------------------|---|---------------|----------------|------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|-----------------------------|-------------------------|---------------------------------------|--|
| NOTE 1 - Anomaly     | Type: U = UXO, F  | = Frag, MD =  | Munitions De   | bris, S = Scrap  | , A = Small Arn             | ns Ammunition               | i, NC = No Cor                 | ntact, O = Other             |                             |                         |                                       |  |
| NOTE 2 - Target Az   | imuth: N = North,   | NW = Northw   | est, W = West  | i, SW = Southw   | est, S = South,             | , SE = Southea              | ast, E = East, N               | IE = Northeas                |                             |                         |                                       |  |
| NOTE 3 - Target Incl | lination: NU = Ver  | tical Nose Up | , ND = Vertica | I Nose Down, IN  | NU = Inclined N             | lose Up, IND =              | Inclined Nose                  | Down, H = Horizont           | а                           |                         |                                       |  |
| Т                    | arget Info  |               | Reacquisi      | tion Survey      |                             |                             |                                |                              | Di                          | g Results               |                                       |  |
| Target Name          | Instrument<br>Response  | Units         | Channel        | Response<br>(mV) | Anomaly<br>Type<br>(note 1) | Approx.<br>Weight<br>(Lbs.) | Azimuth<br>of nose<br>(note 2) | Inclination of nose (note 3) | Depth to<br>top<br>(inches) | Digital Photo<br>Number | Comments                              |  |
| WA6_C2F6I0_091       | 23.4  | Stack mV      | Ch3            | 31.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | Rusty metal scrap and foil            |  |
| WA6_C2F6I0_092       | 23.2  | Stack mV      | Ch3            | 25.0             | 0                           | 0.1                         | -                              | -                            | 2"                          |                         | Aluminum bracket                      |  |
| WA6_C2F6I0_093       | 23.0  | Stack mV      | Ch3            | 10.0             | 0                           | 0.1                         | -                              | -                            | 0"                          |                         | Foil                                  |  |
| WA6_C2F6I0_094       | 22.9  | Stack mV      | Ch3            | 38.0             | 0                           | 0.1                         | -                              | -                            | 4"                          |                         | 5" long wire                          |  |
| WA6_C2F6I0_095       | 22.1  | Stack mV      | Ch3            | 35.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | Brocken up rusted metal               |  |
| WA6_C2F6I0_096       | 22.0  | Stack mV      | Ch3            | 6.0              | NC                          | -                           | -                              | -                            | 6"                          |                         | Reading gone after dig, no item found |  |
| WA6_C2F6I0_097       | 21.8  | Stack mV      | Ch3            | 20.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | Rusted scrap metal                    |  |
| WA6_C2F6I0_098       | 21.5  | Stack mV      | Ch3            | 33.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | Small scrap metal                     |  |
| WA6_C2F6I0_099       | 21.4  | Stack mV      | Ch3            | 23.0             | 0                           | 0.1                         | -                              | -                            | 2"                          |                         | Pull tab                              |  |
| WA6_C2F6I0_100       | 21.3  | Stack mV      | Ch3            | 30.0             | 0                           | 0.1                         | -                              | -                            | 6"                          |                         | Toy truck axel                        |  |
| WA6_C2F6I0_101       | 21.2  | Stack mV      | Ch3            | -3.0             | NC                          | -                           | -                              | -                            | -                           |                         | Next to road, no hit                  |  |
| WA6_C2F6I0_102       | 20.9  | Stack mV      | Ch3            | 44.0             | 0                           | 0.1                         | -                              | -                            | 4"                          | 17A                     | Aluminum Paint pen                    |  |
| WA6_C2F6I0_103       | 20.8  | Stack mV      | Ch3            | 78.0             | 0                           | 0.1                         | -                              | -                            | 0"                          |                         | Pull tab                              |  |
| WA6_C2F6I0_104       | 20.7  | Stack mV      | Ch3            | 18.0             | 0                           | 0.1                         | -                              | -                            | 8"                          | 8A                      | 4" long fork                          |  |
| WA6_C2F6I0_105       | 20.6  | Stack mV      | Ch3            | 15.0             | 0                           | 0.1                         | -                              | -                            | 4"                          |                         | Wire                                  |  |
| WA6_C2F6I0_106       | 20.5  | Stack mV      | Ch3            | 22.0             | 0                           | 0.1                         | -                              | -                            | 5"                          |                         | Rusty scrap metal                     |  |
| WA6_C2F6I0_107       | 20.3  | Stack mV      | Ch3            | 17.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | lip off metal can                     |  |
| WA6_C2F6I0_108       | 20.2  | Stack mV      | Ch3            | -5.0             | NC                          | -                           | -                              | -                            | -                           |                         | Side of road no hit                   |  |
| WA6 C2F6I0 109       | 20.1  | Stack mV      | Ch3            | 18.0             | 0                           | 0.1                         | -                              | -                            | 3"                          |                         | Pull tab                              |  |











March 31, 2011

Mr. Frank Cota ERRG, Incorporated 4585 Pacheco Boulevard, Ste 200 Martinez, California 94553

### Subject: Draft Parker Flats MRA Phase 2 Remedial Investigation (RI), Work Area 7 FORA DGM QA Resurvey Report, Former Fort Ord Monterey County, California

Dear Mr. Cota:

InDepth Corporation (InDepth) is pleased to present this letter report outlining the activities completed and resultant findings of the digital geophysical mapping (DGM) quality assurance (QA) activities associated with the data review and QA resurvey results of the Parker Flats Phase 2 MRA RI Work Area 7 Investigation performed by Weston Solutions, Inc. (Weston) at the former Fort Ord, Parker Flats Work Area 7 which includes all or portions of parcels E18.1.1, E18.1.2 and E18.4. This review was performed using the data available within the January 18, 2011 data transmittal provided by Mark Saunders of Weston Solutions, Inc. and DGM QA resurvey data obtained on February 21, 2011.

Under contract to ERRG, Inc. (ERRG), InDepth performed a review of the Parker Flats Phase 2 MRA RI Work Area 7 DGM data. InDepth reviewed approximately 10% of the production DGM data obtained by Weston throughout the Parker Flats Work Area 7. These data were reviewed for adherence to the data quality standards based on the accepted work plan. This review included a review of the daily quality control checks, the data spacing, and the cross track line spacing. Data were provided by Weston for 2.6 acres of the investigation areas identified covering a total area of approximately 7.7 acres in Work Area 7. InDepth performed a DGM QA resurvey of approximately 0.6 acres, representing approximately 7% of the area investigated by Weston, Inc. InDepth provided the geophysical results and target lists to ERRG, Inc who performed the intrusive investigation in March 23, 2010. ERRG provided the Intrusive investigation results to InDepth on March 29, 2010. InDepth's findings indicated that the data were of sufficient quality to adequately support the Phase 2 MRA RI within the areas investigated.

This letter report contains the findings of our DGM QA Resurvey supported by the enclosed figures.

Mr. Frank Cota March 31, 2011 Draft Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 7 FORA DGM QA Resurvey Report Page 2 of 4

# DGM QA DATA EVALUATION PROCEDURES

The DGM data evaluation included a review of the daily quality control data and a review for 10% of the grid data. At the request of FORA the specific parameters evaluated within each data set included evaluation of the data separation, lane spacing, and gap coverage. All data were evaluated using industry standard QA/QC modules within Geosoft Oasis Montaj v7.1 UX-Detect. The following is a summary of the results for the grids evaluated.

## PARKER FLATS PHASE 2 MRA RI WORK AREA 7 DGM DATA EVALUATION RESULTS

Data evaluation was performed for the Parker Flats Phase 2 MRA RI Work Area 7 DGM data and results. Data quality evaluation indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified within the work plan during DGM of these areas. Data evaluation indicated that the data within each of these grids met the data quality standards within the work plan.

Data evaluation indicated that along track spacing of the data points within these data sets meets the 0.5 foot data separation standard indicated within the QAPP and work plan. Evaluation of transect spacing for these data sets indicated that all of the areas investigated met the data quality objectives in areas without obstructions. Areas with transect spacing gaps caused by cultural features or other obstructions were investigated using intrusive teams to perform detector aided real-time investigations throughout the data gap locations.

Evaluation of these DGM data for Work Area 7 used different criteria based on the proposed land usage. The DGM QA Resurvey data for Parker Flats Work Area 7 were evaluated using the 20 mV anomaly selection criteria, on the summation data, based on the residential land use criteria.

### PARKER FLATS PHASE 2 MRA RI WORK AREA 7 DGM QA RESURVEY

**Parker Flats Work Area 7 QA Resurvey Results.** The QA resurvey in the Work Area 7 QA comprised several irregularly shaped polygons distributed throughout the 2.6 acres of existing DGM investigation area resulting in 29,839 ft<sup>2</sup> of DGM QA resurvey, as shown on Figure 1. The QA DGM resurvey resulted in a site characterized by background readings and 19 geophysical anomalies selected as targets for further investigation, as indicated in Tables 1 and 2. One of the 19 DGM QA targets were located within 3.0 feet of a Weston DGM target selected during the initial DGM investigation. Intrusive investigation of these 19 targets resulted in seven no-contacts (false-

### Mr. Frank Cota March 31, 2011 Draft Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 7 FORA DGM QA Resurvey Report Page 3 of 4

positives), one piece of small arms ammunition and 11 small metallic items, as shown in Table 3. Since no items, greater than the mass of a 37mm projectile, were recovered within this QA resurvey area, the results of the Parker Flats Work Area 7 QA Resurvey meet the work plan QA objectives.

### PARKER FLATS PHASE 2 MRA RI WORK AREA 7 RI/FS QA RESURVEY DGM DATA EVALUATION RESULTS SUMMARY

Evaluation of the DGM data obtained during the QA resurvey indicated that the geophysical systems were within operational specifications to meet the basic data quality standards identified in the work plan. Evaluation of these data indicated that the data met, or exceeded the data density along line and transect spacing requirements as indicated within the QAPP and work plan.

Intrusive investigation for all of these 19 targets resulted in 8 false-positives, 1 items of MEC related debris; the remaining targets were associated various pieces of scrap metal and survey control spikes, as shown in Table 3. The high number of false positives identified within these data is interpreted as the result of aggressive target selection of low amplitude anomalies used to identify any potential failures in the production DGM process being utilized. None of the MEC related debris items recovered during the intrusive activities had a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 7 QA Resurvey indicates that the Weston Work Area 7 DGM data and results meet the work plan QA objectives.

## CONCLUSIONS AND RECOMMENDATIONS

The results of the Parker Flats Work Area 7 DGM QA data evaluation indicate that the data reviewed meet the standards for quality and along track and cross track data spacing. However, some data gaps resulting from cultural features were unavoidable but well within the acceptance criteria identified in the QAPP. In accordance with the work plan these data gaps were investigated by Weston Solutions, Inc. by using detector aided real-time investigation techniques.

Within the Parker Flats Work Area 7 DGM QA Resurvey 19 QA targets were identified, 1 of which were identified within 3.0 feet of an existing Weston DGM target. However, none of these targets resulted in the discovery of a munitions debris related item with a mass greater than the mass of a 37mm projectile, therefore, the results of the Parker Flats Work Area 7 QA Resurvey indicates that the Weston Work Area 7 DGM data and results meet the work plan QA objectives.

## STANDARD OF CARE AND WARRANTY

### Mr. Frank Cota March 31, 2011 Draft Parker Flats MRA Phase 2 Remedial Investigation (RI) Work Area 7 FORA DGM QA Resurvey Report Page 4 of 4

The scope of InDepth's services for the project was to apply appropriate geophysical data processing methods to evaluate the existing geophysical data for adherence to the parameters requested by our client. It should be recognized that the effectiveness and accuracy of the geophysical methods employed by InDepth are subject to the limitations imposed by surface and subsurface conditions at the project site. The geophysical services performed by InDepth were conducted using best-practice in a manner consistent with that level of skill ordinarily exercised by members of the profession currently employing similar methods. InDepth makes no other warranty, with respect to the performance of services or products described in this letter report, expressed or implied.

InDepth appreciates the opportunity to assist ERRG with this project. If you have any questions regarding the content this letter report or results of the investigation, feel free to contact me any time at (707) 888-6605.

### Respectfully, InDepth Corporation

Sin Hukes

Brian W. Hecker Senior Geophysicist, G.P. 991

Enclosures: QA Resurvey Investigation Summary and Target Tables QA Resurvey Data Evaluation Figures

cc: file

### Table 1.

# DGM QA Resurvey Investigation Summary FORA Parker Flats Work Area 7 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Geophysical<br>Operation | Parker Flats<br>Area<br>Designation | FORA Grid<br>Designation | Total Area<br>Investigated<br>(sqft) | Number of<br>Targets |
|--------------------------|-------------------------------------|--------------------------|--------------------------------------|----------------------|
| QA Resurvey              | WA 7                                | Various                  | 29839                                | 19                   |

### Table 2.

# DGM QA Target List FORA Parker Flats Work Area 7 DGM QA Resurvey Report Former Fort Ord, Parker Flats Monterey County, California

| Parker Flats<br>Area<br>Designation | Target Name | Easting<br>(US Survey<br>Feet) | Northing<br>(US Survey<br>Feet) | Target<br>Response<br>Value<br>(Sum) | Units |
|-------------------------------------|-------------|--------------------------------|---------------------------------|--------------------------------------|-------|
| Work Area 7                         | WA7_001     | 5741617.5                      | 2125190.0                       | 42.6                                 | mV    |
| Work Area 7                         | WA7_002     | 5741653.0                      | 2125204.5                       | 96.0                                 | mV    |
| Work Area 7                         | WA7_003     | 5740994.0                      | 2125275.0                       | 24.6                                 | mV    |
| Work Area 7                         | WA7_004     | 5741579.5                      | 2125276.0                       | 25.0                                 | mV    |
| Work Area 7                         | WA7_005     | 5740988.5                      | 2125288.0                       | 29.8                                 | mV    |
| Work Area 7                         | WA7_006     | 5740985.5                      | 2125290.0                       | 68.8                                 | mV    |
| Work Area 7                         | WA7_007     | 5740993.5                      | 2125294.5                       | 25.4                                 | mV    |
| Work Area 7                         | WA7_008     | 5740998.5                      | 2125297.5                       | 945.6                                | mV    |
| Work Area 7                         | WA7_009     | 5741401.0                      | 2125300.0                       | 1133.1                               | mV    |
| Work Area 7                         | WA7_010     | 5741422.5                      | 2125311.0                       | 55.1                                 | mV    |
| Work Area 7                         | WA7_011     | 5741582.0                      | 2125312.0                       | 78.3                                 | mV    |
| Work Area 7                         | WA7_012     | 5741575.5                      | 2125313.5                       | 46.3                                 | mV    |
| Work Area 7                         | WA7_013     | 5741660.5                      | 2125330.0                       | 23.1                                 | mV    |
| Work Area 7                         | WA7_014     | 5741658.5                      | 2125332.0                       | 24.0                                 | mV    |
| Work Area 7                         | WA7_015     | 5741641.5                      | 2125334.5                       | 26.3                                 | mV    |
| Work Area 7                         | WA7_016     | 5741575.5                      | 2125372.0                       | 23.8                                 | mV    |
| Work Area 7                         | WA7_017     | 5741391.5                      | 2125388.5                       | 57.4                                 | mV    |
| Work Area 7                         | WA7_018     | 5741301.0                      | 2125400.5                       | 1848.7                               | mV    |
| Work Area 7                         | WA7_019     | 5741523.0                      | 2125408.0                       | 20.1                                 | mV    |

Note: Survey Coordinates Presented in NAD83 California Zone 4 in US Survey Feet

QA Intrusive Investigation Results

FORA Parker Flats Work Area 7 DGM QA Resurvey Report

Former Fort Ord, Parker Flats

| Project Name: FORA QA2 Resurvey  |                 |               | 1              | UXO Contractor LFR / Weston |                                |   | Equipment     | Serial Number    |                         |                      |   |  |  |
|--|-----------------|---------------|----------------|-----------------------------|--------------------------------|---|---------------|------------------|-------------------------|----------------------|---|--|--|
| Project Location: Monterey County, CA  |                 |               |                |                             | Geophysical Contractor: Weston |   |               | EM61             | Weston                  |                      |   |  |  |
| Coordinate System: NAD83 CS83 Zone 4 (US survey feet)  |                 |               |                |                             | rvey feet)                     | Project Geophysicist: Matthew Gifford                 |               |                  |                         | Allegro              | Weston  |  |  |
| Survey Area: Parker Flats Work Area 7  |                 |               |                |                             | QC Geophysicist:               |   |               |                  | Magnetometer Schonsted  |                      |   |  |  |
| Field Team: G. Pena/R. Ramirez   |                 |               |                |                             | A Contractor: InDepth / FRRG   |   |               |                  | Positioning Trimble RTK |                      |   |  |  |
| Team Leader Signat   | ure:            |               | 0.20.11        |                             |                                | QA Geophysicist: Brian Hecker                         |               |                  |                         | NA NA                |   |  |  |
| Project:   | FORA QA2 Res    | urvey         |                | Survey Area:                |                                | Parker Flats Work Area 7 Field Team: G. Pena/R. Ram D |               |                  |                         | Date: 3.23.11        |   |  |  |
| NOTE 1 - Anomaly T   | ype: U = UXO, F | = Frag, MD =  | - Munitions De | bris, S = Scrap             | , A = Small Arm                | ns Ammunition   | , NC = No Cor | ntact, O = Other |                         |                      |   |  |  |
| VOTE 2 - Target Azimuth: N = North, NW = Northwest, W = West, SW = Southwest, S = South, SE = Southeast, E = East, NE = Northeas |                 |               |                |                             |                                |   |               |                  |                         |                      |   |  |  |
|  | arget Info      | lical Nose up |                | tion Survey                 |                                |   |               |                  |                         |                      |   |  |  |
| 1  | arget mo        |               | Reacquisi      | tion Survey                 | Anomaly                        | Approx  | Azimuth       |                  | Depth to                |                      |   |  |  |
| Target Name  | Instrument      | Unite         | Channel        | Response                    | Type                           | Weight  | of nose       | Inclination of   | Depin to                | <b>Digital Photo</b> | Comments  |  |  |
| ranget marine  | Response        | Onits         | onanner        | (mV)                        | (note 1)                       | (Lbs.)  | (note 2)      | nose (note 3)    | (inches)                | Number               | Comments  |  |  |
| WA7_001  | 42.63672256     | Stack mV      | Ch3            | 3.0                         | NC                             |   | (             |                  | (                       |                      | No Contact; 3mv After Inspection                      |  |  |
| WA7_002  | 95.99785614     | Stack mV      | Ch3            | 43.0                        | S                              |   | SW            | Н                | 3.0                     | 1,                   | 3.2mv After Inspection; 3" Nail                       |  |  |
| WA7_003  | 24.59844589     | Stack mV      | Ch3            | 4.0                         | NC                             |   |               |                  |                         | +                    | No Contact; 4mv After Inspection                      |  |  |
| WA7_004  | 24.99134445     | Stack mV      | Ch3            | 18.0                        | S                              |   | S             |                  | 2.0                     | 1,                   | 2mv After Inspection; 3" Nail                         |  |  |
| WA7_005  | 29.76205444     | Stack mV      | Ch3            | 15.0                        | NC                             |   |               |                  | 8.0                     | 2,                   | No Contact; 1.5mv After Inspection; Rust Stained Dirt |  |  |
| WA7_006  | 68.80111694     | Stack mV      | Ch3            | 17.0                        | NC                             |   |               |                  | 8.0                     | 2,                   | No Contact; 4mv After Inspection; Rust Stained Dirt   |  |  |
| WA7_007  | 25.3582325      | Stack mV      | Ch3            | 18.0                        | S                              |   | NE            |                  | 2.0                     | 3 & 4                | 3mv After Inspection; 3" Nail                         |  |  |
| WA7_008  | 945.6275024     | Stack mV      | Ch3            | 1165.0                      | 0                              |   |               | IND              | 0.0                     | 5, 6 & 7             | 2mv After Inspection; Corner Metal Spike              |  |  |
| WA7_009  | 1133.065796     | Stack mV      | Ch3            | 1160.0                      | 0                              |   |               | IND              | 0.0                     | 5, 6 & 7             | Omv After Inspection; Corner Metal Spike              |  |  |
| WA7_010  | 55.07649231     | Stack mV      | Ch3            | 100.0                       | S                              |   |               | IND              | 0.0                     | 8,                   | 1mv After Inspection; Board 2x4x6 w/Nail              |  |  |
| WA7_011  | 78.31105042     | Stack mV      | Ch3            | 15.0                        | NC                             |   |               |                  | 3.0                     |                      | No Contact; 7.4mv After Inspection                    |  |  |
| WA7_012  | 46.26650238     | Stack mV      | Ch3            | 60.0                        | NC                             |   |               |                  | 6.0                     |                      | No Contact; 6mv After Inspection                      |  |  |
| WA7_013  | 23.11727905     | Stack mV      | Ch3            | 125.0                       | S                              |   |               |                  | 0.0                     | 9,                   | 1.4mv After Inspection; Shared Hit w/014; Alum. Cap   |  |  |
| WA7_014  | 23.98545456     | Stack mV      | Ch3            | same as 013                 | S                              |   |               |                  | 0.0                     | 9,                   | 2mv After Inspection; Shared Hit w/013; Alum. Cap     |  |  |
| WA7_015  | 26.27343941     | Stack mV      | Ch3            | 36.0                        | A                              |   | S             | Н                | 2.0                     | 12,                  | 3.7mv After Inspection; Small Arms 30.06 UnFired      |  |  |
| WA7_016  | 23.75656319     | Stack mV      | Ch3            | 30.0                        | S                              |   |               | Н                | 2.0                     | 11'                  | 1.4mv After Inspection; Alum. Scrap 1x1               |  |  |
| WA7_017  | 57.36579895     | Stack mV      | Ch3            | 56.0                        | S                              |   |               | Н                | 1.0                     | 13,                  | 1.4mv After Inspection; Alum. Cap w/Metal Probe       |  |  |
| WA7_018  | 1848.706909     | Stack mV      | Ch3            | 1380.0                      | 0                              |   |               | IND              | 0.0                     | 5, 6 & 7             | 2mv After Inspection; Corner Metal Spike              |  |  |
| WA7_019  | 20.05875015     | Stack mV      | Ch3            | 4.0                         | NC                             |   |               |                  | 0.0                     | 10,                  | No Contact; Possible Terrain Feature                  |  |  |



### 1. Purpose

### 1.1. OVERVIEW OF UXO SOPS

The series of Unexploded Ordnance (UXO) Standard Operation Procedures (SOPs) provide direction for and are applicable to the Munitions and Explosives of Concern (MEC) services provided by Engineering/Remediation Resources Group, Inc. (ERRG) and cover the breadth of the performance and verification of ERRG UXO services.

These policies and procedures are not all inclusive nor are they applicable in all situations. This SOP is not a stand-alone document and is to be used together with Work Plans (WP), other ERRG SOPs, the ERRG Accident Prevention Plan (APP), applicable Federal, State, local regulations, and contract restrictions and guidance.

### 1.2. PURPOSE OF THIS SOP

The QA Blind Seed Program is a QA process in which QA personnel strategically emplace inert UXO items or simulant items within the project production area to test and validate the MEC operations detection process. The validity of blind seeding as a QA tool is based on assumptions that seed items will accurately mimic actual MEC items expected to be found in the production area. If the UXO team detects the blind seeds, QA personnel determine the MEC operations procedures are working as planned. If the UXO teams fail to find a blind seed, the detection process is either inadequate or being implemented inadequately. Blind seeding should be planned, implemented, a documented and controlled by the ERRG QA Manager.

### 2. Scope

This procedure applies to all instances where the responsibilities of ERRG QA Specialist are charged with the emplacement of QA or QC blind seeding on MEC Intrusive projects.

### 3. References

- ERRG Health and Safety Program;
- OSHA, 29 CFR 1910, Occupational Safety and Health Standards;
- Site Specific Health and Safety Plan;
- Applicable sections of EPA, 40 CFR Parts 260 to 299, Protection of Environment;
- Applicable sections of DOT, 49 CFR Parts 100 to 199, Transportation;
- DOD 4145.26 M, Contractors' Safety Manual for Ammunition and Explosives;
- DOD 6055.9-STD, DOD Ammunition and Explosives Safety Standards;
- DOD 4160.21-M, Defense Reutilization and Marketing Manual;



# QA/QC Blind Seeding

- TM 9-1300-200, Ammunition General;
- TM 9-1300-214, Military Explosives;
- TM 60 Series Publications;

### 4. Definitions

**Discarded Military Munitions (DMM).** - Military munitions that have been abandoned without proper disposal or have been removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include unexploded ordnance, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of consistent with applicable environmental laws and regulations. (10 U.S.C. §2710(e) (2)).

**Exclusion Zone** (EZ) – A zone in which unauthorized personnel are not allowed to be present during MEC clearance or disposal activities.

**Fuzes.** - Devices that initiate the detonation sequence in munitions. Fuzes are typically associated with munitions (e.g., mortars and bombs), but they are occasionally found separately. They may contain a charge large enough to cause injury. Magnetic and proximity fuzes are the most sensitive and, depending on other factors (e.g., fuze location and arming), greatly influence the likelihood of detonation. When separated from the munitions, a fuze may not look like an explosive munitions item.

The terms fuse and fuze mean different things. For this SOP, a fuze is a mechanical or electrical device with explosive or non-explosive components designed to initiate a train of fire or detonation in ordnance (e.g., hand grenade). A fuse is a cord of readily combustible material that can be lit at one end to carry a flame along the length of the fuse to detonate an explosive at the other end (e.g., firecracker).

**Military Munitions.** - Ammunition products and components produced for or used by the armed forces for national defense and security. The term military munitions include ammunition products or components under the control of the Department of Defense, the U.S. Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives; pyrotechnics; chemical and riot control agents; smokes and incendiaries; bulk explosives; chemical agents; chemical munitions; rockets; guided and ballistic missiles; bombs; warheads; mortar rounds; artillery ammunition; small arms ammunition; grenades; mines; torpedoes; depth charges; cluster munitions and dispensers; demolition charges; and devices and components thereof.

Military munitions do not include wholly inert items, improvised explosive devices, or nuclear weapons, nuclear devices, or nuclear components. However, military munitions do include non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. §2011 et seq.) have been completed. (10 U.S.C. §101(e)(4))



# QA/QC Blind Seeding

**Minimum Separation Distance (MSD)** – The minimum separation distance (MSD) is the minimum safe distance for non-essential personnel to be present during UXO Operations. Generally speaking, the maximum horizontal fragmentation distance is to be used for all unexploded ordnance (UXO) items as the MSD for all non-essential personnel for both intentional and unintentional detonations.

**Munitions Constituents (MC).** - Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials. MC also includes emission, degradation, or breakdown elements of such ordnance or munitions. (10 U.S.C. §2710(e)(3)) Note: Munitions constituents are MEC when explosive compounds of the munitions, such as TNT, RDX, and HMX, are in sufficient concentration as to pose an explosive hazard. This situation arises when concentration levels are 10 percent or more. Non-explosive munitions constituents and explosive concentrations less than 10 percent are not considered MEC.

**Munitions and Explosives of Concern (MEC).** - Specific categories of military munitions that may pose unique explosive risks, including:

- unexploded ordnance (UXO), as defined in 10 U.S.C. §101(e)(5);
- discarded military munitions (DMM), as defined in 10 U.S.C. §2710(e)(2); or
- munitions constituents (e.g., TNT, RDX), as defined in 10 U.S.C. §2710(e)(3), present in high enough concentrations to pose an explosive hazard. (See "Munitions constituents")

**Munitions Response.** - Response actions—including investigation, removal actions, and remedial actions—to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC), or to support a determination that no removal or remedial action is required.

**Unexploded Ordnance (UXO).** - Military munitions that:

- (a) have been primed, fuzed, armed, or otherwise prepared for action;
- (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and
- (c) remain unexploded whether by malfunction, design, or any other cause.

(10 U.S.C. §101(e)(5)(A) through (C)) P.L. 106-65, section 3031 (c)(5)(A), provides a more detailed description.

**UXO Operations** - UXO operations are defined as MEC identification; access procedures such as excavation, either by hand or using heavy equipment; handling of UXO, explosives or explosive items; or disposal, including movement, transportation, and final disposal of MEC.



### 5. Responsibilities

### 5.1. PROCEDURE RESPONSIBILITY

The MEC Quality Assurance Manager is responsible for maintenance, management, and revision of this procedure. Questions, comments, or suggestions regarding this SOP should be sent to the MEC Operations Manager.

### 5.2. PROJECT RESPONSIBILITY

ERRG QA Specialists performing this task, or any portion thereof, are responsible for meeting the requirements of this procedure. ERRG employees conducting technical review of task performance are also responsible for following appropriate portions of this SOP.

For those projects where the activities of this SOP are conducted, the UXO QA Specialist is responsible for ensuring that those activities are conducted in accordance with this and other appropriate procedures. Project participants are responsible for documenting information in sufficient detail to provide objective documentation that the requirements of this SOP have been met. Such documentation shall be retained as project records.

### 6. Procedure

### 6.1. MEC AVOIDANCE AND SAFETY CONSIDERATIONS DURING QA SEED EMPLACEMENT

MEC Avoidance procedures specified and outlined in the ERRG MEC Avoidance SOP will be utilized during the emplacement of QA/QC seeds to ensure the safety of personnel involved in operations. This is a valid safety precaution as seeding operations are performed on sites with potential. QA/QC seeding operations will be under the supervision of UXO qualified personnel. Non-UXO trained personnel will not be allowed in the exclusion zone (EZ) or work zone unless accompanied by a UXO Technician. During operations, ERRG personnel will strictly adhere to ERRG's Corporate Health and Safety Plan and Site Specific Health and Safety Plan and the following general safety practices:

- Operations will be conducted only during daylight hours;
- Access to operating areas will be limited to only those personnel necessary to accomplish the specific operation;
- UXO will not be handled during avoidance operations, personnel will be directed away/around from the item;
- During UXO operations the minimum separation distance (MSD) between UXO and non-UXO operations is the fragmentation distance of the munition with the greatest fragmentation distance (MGFD), as stated in the Work Plan. Personnel remaining on-site will be limited to those personnel needed to safely and efficiently prepare the item/s for destruction.);
- Non UXO technicians will receive initial ordnance recognition and safety training prior to beginning
  operations and will be escorted by qualified UXO personnel at all times;



# QA/QC Blind Seeding

- All personnel will attend the daily safety briefing (tailgate safety briefing) prior to entering the operating area;
- Anyone can stop operations for an unsafe act or situation;
- Safety violations and/or unsafe acts will be immediately reported to the UXO Safety Officer (UXOSO);
- Failure to comply with safety rules/procedures may result in termination of employment.

### 6.2. BLIND SEED EMPLACEMENT PROCEDURES

Prior to excavating for the purpose of subsurface seed placement a magnetometer will be utilized to ensure the excavation locations are free of MEC or MPPEH. This will prevent accidental detonation of buried MEC. The immediate area must be clear of metallic anomalies to ensure the intended detection of the blind seed is unimpeded. The procedures used after clearance with a magnetometer to emplace blind seeds are as follows:

- Ensure the seed item is marked with the correct ERRG seed identification number.
- Excavate the intended seed location to the predetermined depth, record depth utilizing the attached QA Seed Report.
- Emplace the blind seed and record burial data on the QA Seed Report as follows:
  - Place and record the blind seed item at depth with center mass of the item at the intended maximum depth.
  - Arrange and record the blind seed in the intended bearing and attitude. A picture of the item will then be taken.
- Once the blind seed has been emplaced and all data recorded, the item's location coordinates will be recorded on the QA Seed Report after being captured utilizing one of the following procedures, procedures are listed in order of preference priority:
  - When available an RTK GPS unit will be utilized to record the coordinates of the item.
  - When an RTK GPS is not available a handheld GPS may be utilized.
  - Measuring tapes used in conjunction with existing grid stakes and/or reacquired anomaly flags.
- The excavation will be backfilled with incremental amounts of soils, between each increment the backfill soils will be tamped to ensure optimum soil density.

### 6.3. CONFIDENTIALITY PROCEDURES

The confidentiality of the blind seed location coordinates is necessary to maintain the validity and effectiveness of the QA/QC blind seeding program. To maintain confidentiality the coordinate file within the GPS unit utilized in the blind seed emplacements will be erased or cleared after the coordinates have been transferred to the QA Seed Report. If possible a plot map may be generated plotting the blind seed



# QA/QC Blind Seeding

locations. The QA Seed Report and plot map, if generated, will be filed and secured by the ERRG QA Manager in such a way as it will not be available to project personnel. Once a blind seed has been discovered during MEC Intrusive operations the QA Manager will compare the coordinates provided by the UXOQC and the coordinated recorded on the QA Seed Report. Once the blind seed has been verified as a blind seed the QA Manager will report the blind seed as discovered.

## 7. Forms

QA Seed Report.



# PARKEN FLATS MRA PHASE II

|         | NonTHING    | BASTING     | 5       |
|---------|-------------|-------------|---------|
| e18-qa1 | 2125038.76  | 5740842.516 | 10.473  |
| e18-qa2 | 2124889.179 | 5741318.718 | -21.201 |
| e18-qa3 | 2124878.862 | 5741524.886 | -41.626 |
| e18-qa4 | 2124779.648 | 5741715.489 | -49.439 |
| e18-qa5 | 2124832.378 | 5741831.731 | -58.87  |
| e18-qa6 | 2124664.621 | 5741909.233 | -54.797 |
| e18-qa7 | 2124573.722 | 5742235.927 | -48.17  |
| e18-qa8 | 2124730.259 | 5742224.947 | -62.416 |

4 JANUARY 2010 ERRG QA SEEDS

# Parker Flats – Parcel E19a.1 QA Seeds February 16, 2010

| POINT ID       | NORTHING    | EASTING     |  |
|----------------|-------------|-------------|--|
| ERRG1 C26862   | 2128641.899 | 5742624.942 |  |
| ERRG2 C268G4   | 2128625.944 | 5742830.223 |  |
| ERRG3 dz 88E8  | 2128488.290 | 5743230.150 |  |
| ERRG4 C2 68 H9 | 2128705.014 | 5743307.572 |  |
| ERRG5C2 G9F1   | 2128572.228 | 5743529.762 |  |
| ERRG6CZ G9F3   | 2128523.869 | 5743696.032 |  |
| ERRG7226964    | 2128646.179 | 5743831.358 |  |



Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota

29 March 2010

# QA BLIND SEEDING ACTION

Present on action:

| Personnel       | Title                  | Employer |
|-----------------|------------------------|----------|
| Frank Cota      | MEC Operations Manager | ERRG     |
| Luis Fierro     | MEC QA Specialist      | ERRG     |
| Richard Ramirez | MEC QA Specialist      | ERRG     |
|                 |                        |          |

### Work Accomplished:

• A total of eight (8) specific blind seed items were placed at the former Ft Ord, Parker Flats Work Area VI, Parcel E18.1.3 ("Race Track" location) at predetermined depths and attitudes as indicated in the Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble GPS system.

|        |          |           |              | Exact L    |            |        |            |          |           |         |          |
|--------|----------|-----------|--------------|------------|------------|--------|------------|----------|-----------|---------|----------|
| Item   | Cood ID# | Dioturo # | Item         | Facting    | Northing   | Donth  | Horizontol | Vortical | 4E Dograd | Dearing | Commonto |
| number | Seed ID# | Picture # | Description  | Easting    | Northing   | Depin  | Horizoniai | ventical | 45 Degree | веания  | Comments |
| 01     | ERRG 01  | 2, 3      | 1″ x 4″ Pipe | 5741306.66 | 2127909.84 | 8-inch |            |          | х         | North   |          |
| 02     | ERRG 02  | 4         | 1″ x 4″ Pipe | 5741426.62 | 2127998.65 | 8-inch | Х          |          |           | East    |          |
| 03     | ERRG 03  | 5         | 1″ x 4″ Pipe | 5741523.88 | 2128010.33 | 8-inch |            |          | х         | East    |          |
| 04     | ERRG 04  | 6         | 1″ x 4″ Pipe | 5741519.08 | 2128109.71 | 8-inch | Х          |          |           | North   |          |
| 05     | ERRG 05  | 7         | 1″ x 4″ Pipe | 5741598.38 | 2128201.25 | 8-inch |            | Х        |           | N/A     |          |
| 06     | ERRG 06  | 8         | 1″ x 4″ Pipe | 5741619.95 | 2128112.09 | 8-inch |            |          | х         | North   |          |
| 07     | ERRG 07  | 9         | 1" x 4" Pipe | 5741576.28 | 2127985.70 | 8-inch |            | Х        |           | N/A     |          |
| 08     | ERRG 08  | 10        | 1″ x 4″ Pipe | 5741473.89 | 2127821.53 | 8-inch | Х          |          |           | North   |          |
|        |          |           |              |            |            |        |            |          |           |         |          |

### QA SEEDING CHART

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Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota

29 March 2010

### ERRG Operations Manager



1) Luis Emplacing Seed



Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota

29 March 2010



2) & 3) QA Seed 001


29 March 2010



4) QA Seed 002





29 March 2010



6) QA Seed 004





29 March 2010







29 March 2010





22 Sep 2010

# QA BLIND SEEDING ACTION

Present on action:

| Personnel   | Title                  | Employer |  |  |
|-------------|------------------------|----------|--|--|
| Frank Cota  | MEC Operations Manager | ERRG     |  |  |
| Luis Fierro | MEC QA Specialist      | ERRG     |  |  |

#### Work Accomplished:

• A total of eight (8) specific blind seed items were placed at the former Ft Ord, Work Area 7 at Parcel E18.1.1 grids C2D6B8, C2D7B2, C2D6C8, C2D6C9, C2D7C3, C2D6D9, C2D6D0 and C2D7D1 at predetermined depths and attitudes as indicated in the Seeding Chart. The chart also contains the Easting and Northings of the seeds, which were captured using a Trimble GPS system.

#### QA SEEDING CHART

|                |             |           |                     | Exact Location |             |        |            |              |         |          |
|----------------|-------------|-----------|---------------------|----------------|-------------|--------|------------|--------------|---------|----------|
| Item<br>Number | Seed<br>ID# | Picture # | Item<br>Description | Easting        | Northing    | Depth  | Horizontal | 45<br>Degree | Bearing | Comments |
| 01             | ERRG<br>01  | 1         | 2" x 6" Pipe        | 5741495.092    | 2125308.990 | 6-inch | Х          |              | NE-SW   |          |
| 02             | ERRG<br>02  | 2         | 2" x 6" Pipe        | 5741508.067    | 2125333.181 | 6-inch |            | Х            | East    |          |
| 03             | ERRG<br>03  | 3         | 2" x 6" Pipe        | 5741378.680    | 2125324.028 | 6-inch | Х          |              | North   |          |
| 04             | ERRG<br>04  | 4         | 2" x 6" Pipe        | 5741616.196    | 2125182.406 | 6-inch | Х          |              | North   |          |
| 05             | ERRG<br>05  | 5         | 2" x 6" Pipe        | 5741709.587    | 2125288.441 | 6-inch |            | Х            | East    |          |
| 06             | ERRG<br>06  | 6         | 2" x 6" Pipe        | 5741381.880    | 2125211.978 | 6-inch | Х          |              | North   |          |
| 07             | ERRG<br>07  | 7         | 2" x 6" Pipe        | 5741242.718    | 2125246.500 | 6-inch | Х          |              | North   |          |
| 08             | ERRG<br>08  | 8         | 2" x 6" Pipe        | 5741264.739    | 2125120.821 | 6-inch | Х          |              | East    |          |
|                |             |           |                     |                |             |        |            |              |         |          |

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ERRG Operations Manager



22 Sep 2010

Project: Former Ft. Ord/Weston 3<sup>rd</sup> Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota





2) QA Seed 002



#### 22 Sep 2010



3) QA Seed 003





22 Sep 2010



5) QA Seed 005





22 Sep 2010

Project: Former Ft. Ord/Weston 3rd Party QA Project No. 28-006 Location: Former Ft. Ord, Monterey, CA Prepared by: Frank Cota

# FORA - Weston - ERRG 3 Buty QA E18.1.1 Grid-C2D6C8 QA SEED # - EREGQA-07 Depth - G inches Direction - North - South Horizontal

7) QA Seed 007



Appendix E. Weston Seed Recovery Tables

# QA Seed Recovery Log

| Work Area                   | Grid No.       | Date Recovered  | Recovered By     | Notes                                     |
|-----------------------------|----------------|-----------------|------------------|---|
| E18.1.1 - Vet Cemetary      | C2C6I9_E18.1.1 | 2/19/2010 10:14 | Jack Kristensen  | errg seed #2                              |
| E18.1.1 - Vet Cemetary      | C2C7I1         | 2/25/2010 17:01 | Jack Kristensen  | ERRG seed #3                              |
| E18.1.1 - Vet Cemetary      | C2D6A4         | 2/18/2010 11:24 | Jack Kristensen  | ERRG seed #1                              |
| E18.1.2 - Vet Cemetary      | C2C7F8         | 3/8/2010 8:41   | Jack Kristensen  | ERRG #7                                   |
| E18.1.2 - Vet Cemetary      | C2C7G5         | 3/2/2010 13:30  | Jack Kristensen  | ERRG seed #6                              |
| E18.1.2 - Vet Cemetary      | C2C7H3         | 2/26/2010 13:57 | Matthew Lauchner | erg seed 4                                |
| E18.1.2 - Vet Cemetary      | C2C7H8         | 2/22/2010 13:04 | Matthew Lauchner | errg seed 8                               |
| E18.1.2 - Vet Cemetary      | C2C7I4         | 2/25/2010 16:58 | Jack Kristensen  | Errg seed #5                              |
| E19a.1 - County Development | C2G9G4         | 4/21/2010 15:19 | Matthew Lauchner | errg seed 07                              |
| E18.1.1 - Vet Cemetary      | C2F6I0_E18.1.1 | 5/24/2010 13:59 | Tony Clark       | errg seed 8                               |
| E18.1.1 - Vet Cemetary      | C2F6J8_E18.1.1 | 5/19/2010 0:00  | Robert Smith     | QA seed 001                               |
| E18.1.3 - Housing Future    | C2F6J0_E18.1.3 | 5/17/2010 9:22  | Jack Kristensen  | QA seed #2                                |
| E18.1.3 - Housing Future    | C2F7J1         | 5/13/2010 14:00 | Matthew Lauchner | errg seed 7                               |
| E18.1.3 - Housing Future    | C2G7A1         | 5/12/2010 9:20  | Matthew Lauchner | ERRG seed 3                               |
| E18.1.3 - Housing Future    | C2G7B1         | 5/12/2010 14:20 | Jack Kristensen  | ERRG seed 4                               |
| E18.1.3 - Housing Future    | C2G7B1         | 5/12/2010 12:54 | Jack Kristensen  | ERRG seed 5                               |
| E18.1.3 - Housing Future    | C2G7B2         | 5/12/2010 11:03 | Jack Kristensen  | ERRG seed 6                               |
| E18.1.3 - Housing Future    | C2G8G2         | 4/26/2010 0:00  | Tony Clark       | errg seed 0001                            |
| E18.1.3 - Housing Future    | C2G8G4         | 4/27/2010 13:52 | John Williams    | #002                                      |
| E18.1.1 - Vet Cemetary      | C2D6B8         | 12/7/2010 14:43 | Matthew Lauchner | Fiducial Survey. Pic ORD2-<br>120711-0002 |
| E18.1.1 - Vet Cemetary      | C2D6C8         | 12/2/2010 15:46 | Matthew Lauchner | qc seed 007                               |
| E18.1.1 - Vet Cemetary      | C2D6C9         | 11/29/2010 7:50 | Robert Smith     | ERRG SEED # 6                             |
| E18.1.1 - Vet Cemetary      | C2D6D9         | 10/13/2010 8:45 | Matthew Lauchner | erg seed 003                              |
| E18.1.1 - Vet Cemetary      | C2D7B2         | 12/7/2010 15:31 | Matthew Lauchner | errg seed 004                             |
| E18.1.1 - Vet Cemetary      | C2D7C3         | 12/8/2010 8:16  | Matthew Lauchner | errg seed 005                             |
| E18.1.1 - Vet Cemetary      | C2D7D1         | 10/13/2010 0:00 | Matthew Lauchner | ERRG seed #2                              |