Bureau of Land Management Area B
Unit B-2A
Munitions and Explosives of Concern
Remedial Action
Technical Memorandum
Former Fort Ord, California

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List of Acronyms

AGCMR-QAPP	*Quality Assurance Project Plan Superfund Response Actions Former Fort Ord, California Volume II Munitions Response Appendix B Advanced Geophysical Classification for Munitions Response Quality Assurance Project Plan*
AGC	Advanced Geophysical Classification
AR	Administrative Record
Army	United States Department of the Army
BLM	United States Bureau of Land Management
BLM Area B SSWP	*Final Site-Specific Work Plan Munitions and Explosives of Concern Remedial Action BLM Area B Former Fort Ord, California*
CAR	Corrective Action Request
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosives
CMS	CMS Environmental, Inc.
DGM	Digital Geophysical Mapping
DMM	Discarded Military Munitions
EM61	Geonics EM61-MK2A
EOD	Explosive Ordnance Disposal
FWV	Field Work Variance
HFA	Human Factors Applications, Inc.
HMP	Habitat Management Plan
ISD	Insufficient Data
KEMRON	KEMRON Environmental Services, Inc.
lbs	pounds
MD	Munitions Debris
MEC	Munitions and Explosives of Concern
MEC QAPP	*Final Quality Assurance Project Plan Former Fort Ord, California Volume II Appendix A Munitions and Explosives of Concern Remedial Action*
mm	millimeter
MM2x2	Geometrics MetalMapper 2x2
MQO	Measurement Quality Objectives
mV	millivolt
OD	Other Debris
OESS	USACE Ordnance and Explosives Safety Specialist
QA	Quality Assurance
QC	Quality Control
RA	Remedial Action
RD	Remedial Design
RRD	Range-Related Debris
SOP	Standard Operating Procedures
SRA	Saturated Response Area
SSWP	Site-Specific Work Plan
TM	Technical Memorandum
TOI	Target of Interest
USA	USA Environmental, Inc.
USACE	United States Army Corps of Engineers
UXB	UXB International. Inc.
UXO	Unexploded Ordnance

1.0 Introduction

This Technical Memorandum (TM) describes the Munitions and Explosives of Concern (MEC) Remedial Actions (RAs) performed by KEMRON Environmental Services, Inc. (KEMRON), with Gilbane as a subcontractor, within Bureau of Land Management (BLM) Area B, Unit B-2A (Figure 1). The RAs within BLM Area B, Unit B-2A occurred under the following documents:

- *Final Record of Decision Track 2 Bureau of Land Management Area B and Munitions Response Site 16 Former Fort Ord, California* [United States Department of the Army (Army), 2017];
- *Final Work Plan Remedial Design (RD)/Remedial Action (RA) Track 2 Bureau of Land Management Area B and Munitions Response Site 16 Former Fort Ord, California* (KEMRON, 2017a); and
- *Final Site-Specific Work Plan Munitions and Explosives of Concern Remedial Action BLM Area B Former Fort Ord, California* (BLM Area B SSWP; KEMRON, 2017b).

Technology-aided surface MEC removal (surface MEC removal) and Digital Geophysical Mapping (DGM) are complete within Unit B-2A. Subsurface MEC removal along trails has also been completed. This document evaluates and presents a review of vegetation clearance, surface MEC removal, DGM survey, risk reduction, and subsurface MEC removal completed in Unit B-2A. Based upon an evaluation of the results of RAs performed to date and the Army - BLM Joint Inspection Summary (Appendix A), this document provides recommendations concerning additional RA.

The sequencing of RA in Unit B-2A was unique based on community interest in trail access for this area. The remedial action areas are described in Section 2.0 and shown on Figure 2.

1.1 Site Location

Unit B-2A (approximately 72 acres) is located in Remedial Work Area B-2A within BLM Area B. Unit B-2A lies to the east of Hennekens Ranch Road, west of Barloy Canyon Road, and south of East Machine Gun Flats Road (Figure 1).

1.2 Summary of MEC Items Removed Prior to Remedial Action

Items found during activities prior to KEMRON RA are detailed in the *Final, Revision 2, Track 2 Munitions Response Remedial Investigation /Feasibility Study, BLM Area B and MRS-16, Former Fort Ord, California* (Gilbane, 2015). The items include five insufficient data (ISD[1]) and seven MEC item records (Table 1 and Figure 3).

Table 1. Unit B-2A MEC Items Recovered Prior to Remedial Action

Date Found	Contractor	Item Type	Qty	Description	Depth (Inches)
1/6/1994	HFA	UXO	1	Grenade, rifle (model unknown)	0
9/15/1994	UXB	UXO	1	Grenade, hand, fragmentation, MK II	0
7/11/1996	CMS	UXO	1	Grenade, rifle, smoke, M22 series	0
7/11/1996	CMS	UXO	1	Signal, illumination, ground, M126 series	0
7/18/1996	CMS	ISD	0	Grenade, hand, fragmentation, MK II	0
7/18/1996	CMS	ISD	0	Grenade, hand, fragmentation, MK II	0
7/18/1996	CMS	ISD	0	Signal, illumination, ground, M125 series	0
9/10/1997	USA	UXO	1	Flare, surface, trip, M49 series	1
7/23/1998	USA	ISD	1	Pot, 10lb, smoke, HC, screening, M1	5
7/28/1998	USA	UXO	1	Fuze, grenade, hand, practice, M205 series	1
7/28/1998	USA	UXO	1	Signal, illumination, ground, parachute, M17 series	4
10/14/1998	BLM	ISD	1	Grenade, hand, fragmentation, MK II	0

BLM: United States Bureau of Land Management
CMS: CMS Environmental, Inc.
HFA: Human Factors Applications, Inc.
ISD: Insufficient Data
USA: USA Environmental, Inc.
UXB: UXB International. Inc.
UXO: Unexploded Ordnance

[1]Based on the review of the database, if sufficient data is unavailable in the historical record to definitively confirm an item as explosive (MEC) or inert [munitions debris (MD)], it is categorized as ISD. ISD items are conservatively considered as MEC in the Fort Ord Military Munitions Response Program.

2.0 Work Completed

KEMRON initiated field work in Unit B-2A in September 2017 in accordance with BLM Area B SSWP (KEMRON, 2017b). To date, work completed in Unit B-2A includes vegetation clearance, technology-aided surface MEC removal (surface MEC removal), DGM survey, risk reduction, and subsurface MEC removal along trails 61 & 62. RA of Unit B-2A was conducted in a phased approach: B-2A Primary Area; Trails 61 & 62; and Trail Buffer (Figure 2). Field work was completed in phases to continually assess the possibility of maintaining the Trail Buffer to preserve the trail character.

Table 2 shows a summary of results for RAs. KEMRON implemented Quality Control/Quality Assurance (QC/QA) processes in accordance with the BLM Area B SSWP (KEMRON, 2017b). DGM data have been provided to the United States Army Corps of Engineers (USACE) QA Geophysicist to ensure all data met established measurement quality objectives (MQOs). No corrective action requests were made by the QA Geophysicist. QA results will be provided in the remedial action report for Unit B-2A.

Table 2. Unit B-2A Cumulative Results

Parameter	Totals
Surface MEC removal acreage*	~72
MEC Items	17
MD Weight (lbs)	3,968
RRD and OD (lbs)	10,875
Digital Geophysical Mapping (DGM) survey acreage**	~64
Subsurface MEC removal (Trails 61 & 62) acreage	~1
MEC Items	0
MD Weight (lbs)	155
RRD and OD (lbs)	4,898
Risk reduction*** acreage	~72
MEC Items	9
MD Weight (lbs)	193.5
RRD and OD (lbs)	270.5

MEC: Munitions and Explosives of Concern
MD: Munitions Debris
RRD: Range Related Debris
OD: Other Debris
*Unexploded Ordnance (UXO) personnel conducted surface MEC removal over the entire unit (72 acres)
**Approximately 8 acres were inaccessible due to the presence of trees and other vegetation specifically marked for protection and avoidance, as well as areas with steep terrain.
***The risk reduction consisted of a limited subsurface removal of selected targets.

2.1 B-2A Primary Area

RA work within the B-2A Primary Area (Figure 2) was initiated in September 2017. Work included vegetation clearance, surface MEC removal, DGM survey, and a risk reduction.

2.1.1 Vegetation Clearance

Vegetation clearance to support RAs was conducted by manual and mechanical mastication as shown in Figure 4. Vegetation clearance occurred in accordance with the BLM Area B SSWP (KEMRON, 2017b). Vegetation cutting was not conducted in the approximately 40-foot wide Trail Buffer area during the 2017 operations and was conducted during the Trail Buffer Phase (Section 2.3) which started in January 2019. Vegetation Removal may have occurred in small areas more than once due to multiple phase approach.

The BLM Area B SSWP (KEMRON, 2017b) identified that vegetation will be cut to a height of six inches or less above the ground surface (excluding trees with a diameter of four inches or larger at breast height) unless vegetation is specifically marked for protection and avoidance. Hand crews limbed the trees left standing, to a height specified for fire safety, and retained all branches larger than four inches in diameter. The Project Biologist marked Toro manzanita, a species identified in the *Installation-wide Multispecies Habitat Management Plan for Former Fort Ord, California* [HMP; USACE, 1997], for protection and avoidance. Manzanitas left standing were limbed, if necessary, with only the minimum amount of limbs removed to allow access beneath the individuals. Hand crews manually cleared the understory so that Unexploded Ordnance (UXO) personnel could conduct surface MEC removal. A few Toro manzanitas were incidentally cut within a small portion of the Unit B-2A. The majority of the Toro manzanitas identified for protection within the unit were not impacted.

2.1.2 Technology-Aided Surface MEC Removal

KEMRON conducted surface MEC removal of within the B-2A Primary Area (Figure 2) between October 2017 through January 2018. Surface MEC removal followed vegetation clearance and utilized remedial work grids (Figure 5). UXO personnel with Schonstedt magnetometers used search lanes approximately five feet in width. Surface MEC removal met the QC/QA measurement

quality objectives. The QC results are included in Appendix B. The QA results are included in Appendix C.

A 4.2-inch screening smoke mortar projectile was recovered during surface MEC removal operations on December 11, 2017. Liquid filled 4.2-inch mortar projectiles have the potential to be used for delivery of chemical warfare agent; however, those previously encountered at Fort Ord have all been determined to contain screening smoke fillers. Since the filler cannot be confirmed visually, the 4.2-inch mortar was initially classified as a munition with unknown filler. Both the Department of Defense and USACE guidance specify that only Explosive Ordnance Disposal (EOD) or Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) response personnel can determine the most likely filler present in a munition. In accordance with standard operating procedures (SOPs), active duty EOD personnel were contacted to determine the filler of this item (Appendix D). It was confirmed as smoke-filled, and was subsequently subjected to a detonation. Work was stopped until a response was completed by EOD and/or CBRNE personnel. Based on the potential for 4.2-inch mortars with unknown filler to remain in the shallow subsurface, Field Work Variance (FWV) 020 (Appendix G) was prepared and a risk reduction was conducted. Risk reduction information for the B-2A Primary Area is documented in Section 2.1.5.

2.1.3 Digital Geophysical Mapping Survey

Field personnel conducted the DGM survey with a vehicle-towed Geonics EM61-MK2A (EM61) in the B-2A Primary Area between January 2018 through April 2018. DGM survey was inaccessible due to the presence of trees and other vegetation specifically marked for protection and avoidance, as well as areas with steep terrain.

The BLM Area B SSWP (KEMRON, 2017b) stated that no significant difference exists in the quality of DGM data meeting the Category B standard defined in the *Final Quality Assurance Project Plan Former Fort Ord, California Volume II Appendix A Munitions and Explosives of Concern Remedial Action* (MEC QAPP; KEMRON, 2016a) (at least 95% of the data acquired at 2.5-foot line spacing and 98% acquired at 3-foot line spacing) and data meeting the Category A standard (at least 95% of the data acquired at 2-foot line spacing, 100% acquired at 3-foot line spacing, and no unexplained data gaps), apart from the allowed existence of small data gaps in Category B data. Category B DGM data is acceptable for general subsurface mapping and may

only require fill-in of small data gaps to meet the Category A standard necessary for targeting and subsurface removal. Anticipating future subsurface removal in some portions of Unit B-2A but not in others, the Project Geophysicist implemented a "Modified Category A" standard to provide a more practical approach of obtaining the data coverage necessary for target identification in subsurface removal areas without requiring fill-in of small data gaps in areas where subsurface removal would not be conducted. The Modified Category A standard specifies that at least 95% of the data is acquired at 2-foot line spacing and 99.5% is acquired at 3-foot line spacing. Figure 7 depicts the DGM survey results. The DGM survey met the QC/QA measurement quality objectives. The DGM QC results are included in Appendix B. Appendix B identifies the grids selected for reprocessing by the QC Geophysicist and defined the categories used for data collection. Appendix H includes the USACE DGM QA Approval and Discussion.

2.1.4 Summary of MEC/MD Removed

UXO personnel managed items encountered and removed during RAs in a manner consistent with the BLM Area B SSWP (KEMRON, 2017b) and the MEC QAPP (KEMRON, 2016a). The UXO personnel recovered 14 MEC items (Table 3, Appendix F, and Figure 5) during surface MEC removal in the B-2A Primary Area, conducted under the BLM Area B SSWP (KEMRON, 2017b). The MEC items [Discarded Military Munitions (DMM) and UXO] and Munitions Debris (MD) [approximately 3,699 pounds (lbs)] recovered in the B-2A Primary Area did not indicate presence of munitions with sensitive fuzes.

Table 3. Unit B-2A Primary Area MEC Items Recovered During Surface MEC Removal

Description	DMM Qty	UXO Qty
Flare, surface, trip, M49 series	2	4
Fuze, grenade, hand, practice, M228	1	--
Grenade, hand, fragmentation, MK II	--	1
Grenade, hand, riot, CS, M7A3	--	1
Grenade, rifle, smoke, M22 series	--	1
Projectile, 37mm, low explosive, MK I	--	1
Projectile, 4.2-inch, screening, smoke, FS, M2 series	--	1
Signal, illumination, ground, parachute, M17 series	--	1
Signal, illumination, ground, M131	--	1
Total Items Recovered	**3**	**11**

Note: This is a summary table of the information in Appendix F.

2.1.5 Risk Reduction

During surface MEC removal within the B-2A Primary Area a 4.2-inch mortar, initially identified as being filled with an unknown liquid (later determined to be smoke; Section 2.1.2), was found. Based on the potential for additional 4.2-inch mortars with unknown filler to be present in the unit, a risk reduction operation was conducted (Appendix G).

Subsurface anomalies were identified in the DGM datasets using the target anomaly response value. Using a threshold of a response value of 185 millivolt (mV) in sum channel or greater, 749 targets were identified. In the interest of being conservative, a threshold lower than 200mV identified in the FWV (Appendix G) was selected. Subsurface anomalies could not be identified in Saturated Response Areas (SRAs) and data gaps (see Sections 2.1.5.1 and 2.1.5.2). To reduce the number of intrusive investigations advanced geophysical classification (AGC) using the Geometrics MetalMapper 2x2 (MM2x2) was utilized. The MM2x2 was placed directly over anomaly locations to acquire static data in accordance with the *Quality Assurance Project Plan Superfund Response Actions Former Fort Ord, California Volume II Munitions Response Appendix B Advanced Geophysical Classification for Munitions Response Quality Assurance Project Plan* (AGCMR-QAPP; KEMRON, 2016b). The acquired static data was processed through an inversion modeling routine to estimate the intrinsic parameters of each anomaly source. The results were compared to the known parameters of MEC items in the classification library. Using AGC, each anomaly was classified by category according to its likelihood of being a target of interest (TOI), in this case a 4.2-inch mortar, and a classification category was assigned. Following AGC, 69 anomalies were determined to require excavation in the B-2A Primary Area (Table 4). The 69 digs include 9 Category 3 targets selected by the USACE Geophysicist to validate the classification process.

Table 4. Risk Reduction - Classification Category Summary

Classification Category	Quantity	Dig/Do Not Dig
Category 0 (Cannot Analyze)	33	Dig
Category 1 (High-Confidence TOI)	13	Dig
Category 2 (Inconclusive)	14	Dig
Category 3 (High-Confidence Non-TOI)	689	Do Not Dig
Total	**749**	

All AGC selected anomalies (targets) were investigated in October 2018. For Category 0, 2, and 3 targets, if a depth of 18 inches was reached and no item was encountered, excavation was stopped and the excavation was backfilled. Due to the high confidence associated with Category 1 targets, no excavation depth restriction was applied. Measuring tapes were used to verify depths of excavations. Standard excavation quality control measures were implemented for all excavations.

2.1.5.1 Data Gap Areas

A risk reduction operation was also conducted in the DGM data gap areas between May through June 2019. Data gaps are due to obstacles such as the presence of trees and other vegetation specifically marked for protection and avoidance, as well as areas with steep terrain. Data gaps large enough to contain an undetected 4.2-inch mortar were investigated by UXO technicians using analog subsurface removal methods. The 4.2-inch mortar is a large item and can be detected by an EM61 at a distance greater than three feet from the item. A data gap would need to be wider than six feet to contain an undetected 4.2-inch mortar. Therefore, the geophysical team made the determination that data gaps larger than 36 square feet maintained the potential to contain a 4.2-inch mortar and required analog subsurface investigation. Data gaps less than 36 square feet in size with no elevated EM61 response adjacent to data gap did not require further investigation.

In the data gaps, KEMRON completed an intrusive investigation using a hand-held metal detector and an EM61 in analog mode. Subsurface anomalies with EM61 channel 2 response values greater than or equal to 50 mV (equivalent to the 185 mV sum channel detection threshold) were excavated to a depth of 24 inches.

2.1.5.2 Saturated Response Areas

Two saturated response areas were present in the B-2A Primary Area. Within the SRA areas, individual anomalies could not be identified in the DGM data due to elevated responses. In these areas an intrusive investigation occurred using a hand-held metal detector and an EM61 in analog mode. Anomalies identified using the EM61 in analog mode, where the channel 2 response values greater than or equal to 50mV (equivalent to the 185mV sum channel detection threshold) were excavated to a depth of 24 inches.

2.1.5.3 Quality Control/Quality Assurance

A modified DGM QC/QA process was implemented. This modified process was conducted because the goal of the investigation was the removal of only large anomaly sources that could be associated with 4.2-inch mortar. Dig teams were therefore required to clear targets where the channel 2 response values greater than or equal to 50mV (equivalent to the 185mV sum channel detection threshold). The QC geophysicist conducted an evaluation of the mV readings to ensure that all channel 2 response values were below 50 mV. Additionally, a percentage of dig locations were field checked by the QC Geophysicist with an EM61. A limited number of anomalies that remained and were greater than 50mV after excavation were assessed and the QC geophysicist recorded and approved these anomalies on the basis of the field observations. While the 50mV threshold was used for the risk reduction, the intrusive investigations of several of the anomalies resulted in the residual channel 2 response being less than 4.2mV which is the standard equivalent to the 14mV sum channel detection threshold. QC Results are summarized in Appendix B.

DGM data have been provided to the USACE QA Geophysicist to ensure all data met established measurement quality objectives (MQOs). The QA Geophysicist made no corrective action requests. The USACE Ordnance and Explosives Safety Specialist (OESS) and QA Geophysicist completed QA in the gaps and SRA areas. Appendix H includes the USACE DGM QA Approval and Discussion.

2.1.5.4 Results

Risk reduction activities in the B-2A Primary Area resulted in the recovery of two 4.2-inch mortars. The SOPs identified in FWV 020 (Appendix G) were followed and the mortars were determined to be smoke-filled (Appendix D). MEC items recovered are presented in Appendix F and shown on Figure 8. MD as well as range related debris (RRD) and other debris (OD) was also found during risk reduction operations. Results for the risk reduction operations AGC targets are included in Appendix E and shown on Figure 9. “Same anomaly” was assigned to excess target(s) when multiple targets identified the same object/signal. If no signal or an insufficient signal was detected at a target location the target was identified as a “false positive” in the dig results. If a signal was detected for a Category 0, 2 or 3 target but the source of the signal was not encountered within the 18-inch excavation, the source was identified as “unknown” (Figure 8 and Appendix E). A summary of the risk reduction results in the B-2A Primary Area are provided in Table 5 below.

Table 5. Unit B-2A Primary Area - Summary of Risk Reduction Results

Risk reduction operation	MEC items	MD weight (lbs)	RRD and OD (lbs)
Gaps & SRAs	6 (UXO)	119.6	67.2
AGC Targets	2 (UXO)	43.5	30.5
Total	**8**	**163.1**	**97.7**

2.2 Trails 61 & 62

RA operations specific to Trails 61 & 62 (Figure 2) was initiated in August 2018. Work included vegetation clearance and subsurface MEC removal. No risk reduction was necessary in the Trails 61 & 62 area as subsurface MEC removal was completed.

2.2.1 Vegetation Clearance

Vegetation clearance was conducted support RAs as part of the Trails 61 & 62 phase following the procedures described in Section 2.1.1. Manual vegetation removal occurred as shown in Figure 4.

2.2.2 Subsurface MEC Removal

The BLM Area B SSWP (KEMRON, 2017b) specified subsurface MEC removal on trial alignments as a 12-foot wide area. Based on coordination with BLM, the 12-foot wide area included a 4-foot wide travel lane and a 4-foot wide area on both sides. On Trails 61 & 62, subsurface MEC removal was conducted (August 2018 through September 2018) through an intrusive investigation using a hand-held metal detector and an EM61 in analog mode. Subsurface MEC removal is complete on Trails 61 & 62 (Figure 10) to a depth of 4-feet. Subsurface MEC removal met the measurement quality objectives and the QC/QA practices outlined in the BLM Area B SSWP (KEMRON, 2017b). No QC failures occurred within Unit B-2A. The USACE did not issue any corrective action requests (CARs). The QC results are included in Appendix B. The QA results are included in Appendix C.

2.2.3 Summary of MEC/MD Removed

UXO personnel managed items encountered and removed during RAs in a manner consistent with the BLM Area B SSWP (KEMRON, 2017b) and the MEC QAPP (KEMRON, 2016a). The UXO

personnel did not recover MEC items (Figure 10) during the subsurface MEC removal on Trails 61 & 62, conducted under the BLM Area B SSWP (KEMRON, 2017b).

2.3 Trail Buffer

Based on an evaluation of the primary area surface MEC removal, subsurface MEC removal along Trails 61 & 62, and the risk reduction work, RA was necessary due to the potential for unknown filler-type munitions. RA operations specific to the Trail Buffer were initiated in January 2019. Work included vegetation clearance, surface MEC removal, DGM survey, and a risk reduction.

2.3.1 Vegetation Clearance

Vegetation clearance was conducted to support RAs in the Trail Buffer following the procedures described in Section 2.1.1. Manual and mechanical mastication occurred as shown in Figure 4. KEMRON did not conduct vegetation removal in the vernal pond (approximately <0. 2 acres) located in the trail buffer.

2.3.2 Technology-Aided Surface MEC Removal

KEMRON conducted surface MEC removal (January 2019 through February 2019) within the B-2A Trail Buffer (Figure 2) as described in Section 2.1.2.

2.3.3 Digital Geophysical Mapping Survey

The DGM in the Trail Buffer was implemented (March 2019 through April 2019) (Figure 7). Similar to the Primary Area, anticipating the future subsurface removal in portions of the Trail Buffer, the Project Geophysicist implemented a “Modified Category A” standard. The Category A standard is described in Section 2.1.3. The DGM data met the QC/QA measurement quality objectives. The DGM QC results are included in Appendix B. Appendix H includes the USACE DGM QA Approval and Discussion.Data gaps were present due to trees, other vegetation specifically marked for protection and avoidance, Pond 74, as well as areas with steep terrain.

2.3.4 Summary of MEC/MD Removed

UXO personnel managed items encountered and removed during RAs in a manner consistent with the BLM Area B SSWP (KEMRON, 2017b) and the MEC QAPP (KEMRON, 2016a). The UXO personnel recovered three MEC items (Table 6, Appendix F, and Figure 5) during surface MEC removal in the Trail Buffer area, conducted under the BLM Area B SSWP (KEMRON, 2017b).

The MEC items (UXO) and MD (approximately 269 lbs) recovered in the Trail Buffer area did not indicate presence of munitions with sensitive fuzes.

Table 6. B-2A Trail Buffer MEC Items Recovered During Surface MEC Removal

Description	DMM Qty	UXO Qty
Flare, surface, trip, M49 series	--	1
Projectile, 37mm, low explosive, MK I	--	1
Signal, illumination, ground, M127 series	--	1
Total Items Recovered	**0**	**3**

Note: This is a summary table of the information in Appendix F.

2.3.5 Risk Reduction

As identified in Section 2.1.5, due to the potential for 4.2-inch mortars with unknown filler to be present, a risk reduction operation was conducted. Subsurface anomalies were identified in the DGM datasets and cleared to a depth of 24 inches. A total of 54 targets were identified in the Trail Buffer area. Due to the relatively small number of targets it was determined that classification of the targets using MM2x2 was not necessary in the Trail Buffer. The 54 target picks and QC documentation were reviewed by the QA Geophysicist to ensure all anomalies above 185 mV were selected, reacquired, and resolved in accordance with MEC QAPP (KEMRON, 2016a) SOPs. In the interest of being conservative, a threshold lower than 200mV identified in the FWV (Appendix G) was selected. All 54 targets identified were excavated between April through May 2019. A risk reduction operation was conducted in data gaps between April through June 2019 as described in Section 2.1.5.1. No SRAs were identified in the Trail Buffer area. QA/QC was implemented as described in Section

2.3.5.1 Results

MEC items recovered are presented in Appendix F and shown on Figure 8. Results for risk reduction DGM selected targets are included in Appendix E and shown on Figure 9. A summary of the risk reduction results in the Trail Buffer area are provided in Table 7 below.

Table 7. Trail Buffer Area - Summary of Risk Reduction Results

Risk reduction operation	MEC items	MD weight (lbs)	RRD and OD (lbs)
Gaps	1 (UXO)	3.1	108.3
DGM Targets	0	27.3	64.5
Total	**1 (UXO)**	**30.4**	**172.8**

3.0 Field Work Variance(s)

During execution of field work, unforeseen circumstances or events may arise that require modification to field work procedures. A FWV documents any required modifications to field work. The RAs in Unit B-2A required one FWV to the BLM Area B SSWP (KEMRON, 2017b). The risk reduction for 4.2-inch mortars is addressed in FWV 020 (Appendix G). In the interest of being conservative, a threshold lower than 200mV was selected for the risk reduction.

4.0 Observations of Evidence of Potential Soil Contamination

During field operations, UXO field personnel noted no features or items that might indicate potential soil contamination such as small arms training (e.g., mounds, berms, structures, concentrations of expended bullets, concentrations of other munitions-related items).

5.0 Consideration for Future MEC Remedial Action

The BLM Area B SSWP (KEMRON, 2017b) indicated that subsurface MEC removal would occur in portions of BLM Area B to address the risk associated with specific reuse, such as proposed or existing roads, fuel breaks, proposed or existing trails in the BLM trail network, and future habitat restoration sites. Subsurface MEC removal has been conducted in the Trails 61 & 62 (Section 2.2.2). Risk reduction has also been conducted in the unit (Sections 2.1.5 & 2.3.5). During the joint inspection (Appendix A), BLM identified restoration areas (Figure 11). USACE OESS recommended analog subsurface removal to 24 inch depth in the restoration footprint to support planned activities. No additional subsurface removal is recommended beyond the restoration areas identifies in Figure 11.

6.0 Recommendation & Conclusion

Vegetation clearance (Figure 4), surface MEC removal (Figure 5), DGM survey (Figure 7), risk reduction (Figure 8 and Figure 9) and subsurface MEC removal (Figure 10) are complete within Unit B-2A. The probability of encountering an unknown filler item during reuse of the property is low. Based on an evaluation of work completed to date, USACE OESS recommended analog

subsurface removal to 24 inch depth in the restoration footprint (Figure 11) to support the planned BLM activities. No additional subsurface removal is recommended beyond the restoration areas identified in Figure 11. The Remedial Action Report will document all RAs conducted.

7.0 References

Gilbane, 2015. *Final, Revision 2, Track 2 Munitions Response Remedial Investigation /Feasibility Study, BLM Area B and MRS-16, Former Fort Ord, California* (Administrative Record [AR] # OE- 0802D)

KEMRON Environmental Services, Inc. (KEMRON), 2016a. *Final Quality Assurance Project Plan Former Fort Ord, California Volume II Appendix A Munitions and Explosives of Concern Remedial Action* (AR# OE-0884A)

KEMRON, 2016b. *Quality Assurance Project Plan Superfund Response Actions Former Fort Ord, California Volume II Munitions Response Appendix B Advanced Geophysical Classification for Munitions Response Quality Assurance Project Plan*. (AR# OE-0868B)

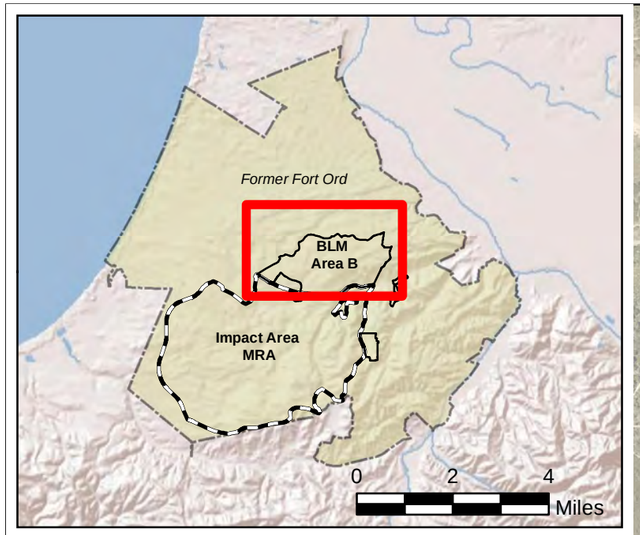
KEMRON, 2017a. *Final Work Plan Remedial Design (RD)/Remedial Action (RA) Track 2 Bureau of Land Management Area B and Munitions Response Site 16 Former Fort Ord, California* (AR# OE-0899B)

KEMRON, 2017b. *Final Site-Specific Work Plan Munitions and Explosives of Concern Remedial Action BLM Area B Former Fort Ord, California* (AR# OE-0900B)

United States Army Corps of Engineers (USACE), 1997. *Installation-wide Multispecies Habitat Management Plan for Former Fort Ord, California* (AR# BW-1787)

The United States Department of the Army (Army), 2017. *Final Record of Decision Track 2 Bureau of Land Management Area B and Munitions Response Site 16 Former Fort Ord, California* (AR# OE-0897)

Figures



GIGLING RD
WATKINS GATE RD
ADDINGTON RD
BARLOY CANYON RD
PARKER FLATS RD
E MACHINE GUN FLATS RD
HENNEKENS RANCH RD
EUCALYPTUS RD

Unit B-2A (~72 acres)
BLM Area B Units
BLM Area B Boundary
Impact Area MRA Boundary

B-3E-NE
B-3E
B-2A
A
B
C
B-3W
MRS-16
Impact Area MRA

N
0 500 1,000 2,000 Feet

BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 1

Location

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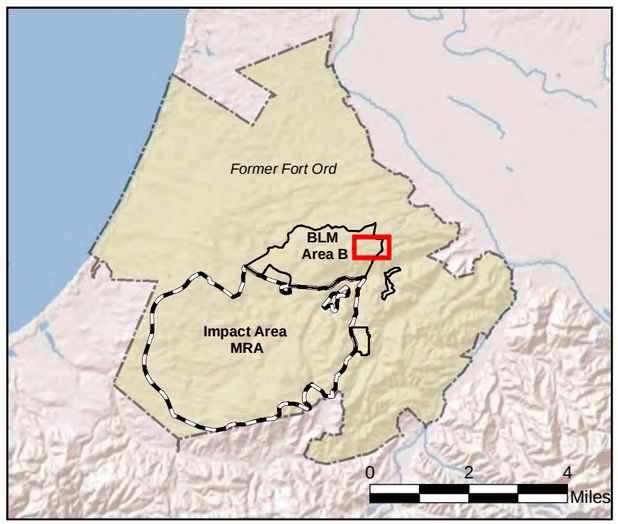
E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

BARLOY CANYON RD



N

0 100 200 400
Feet

Unit B-2A

Other BLM Area B Unit Boundaries

Phase Areas

B-2A Primary Area (~61 acres)

Trails 61 & 62 (~1 acre)

Trail Buffer (~10 acres)

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BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 2

Unit B-2A Phase Areas

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E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

BARLOY CANYON RD

N

0 100 200 400
Feet

Unit B-2A

Other BLM Area B Unit Boundaries

Flare, surface, trip, M49 series

Fuze, grenade, hand, practice, M205 series

Grenade, hand, fragmentation, MK II

Grenade, rifle (model unknown)

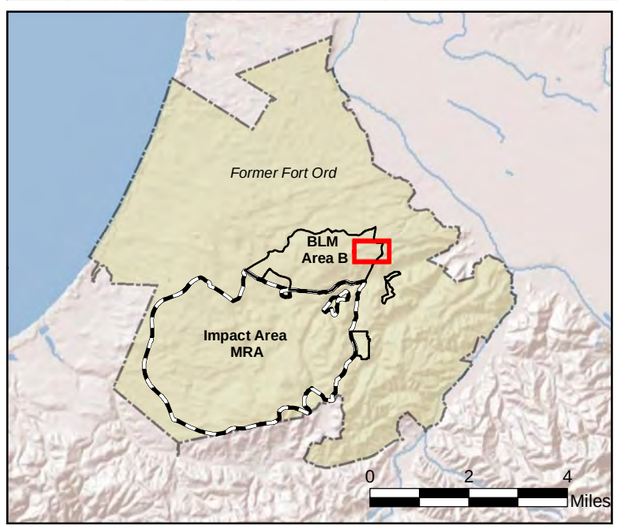
Grenade, rifle, smoke, M22 series

Pot, 10lb, smoke, HC, screening, M1

Signal, illumination, ground, parachute, M17 series

Signal, illumination, ground, M125 series

Signal, illumination, ground, M126 series



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BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 3

MEC Items Removed Prior to Remedial Action

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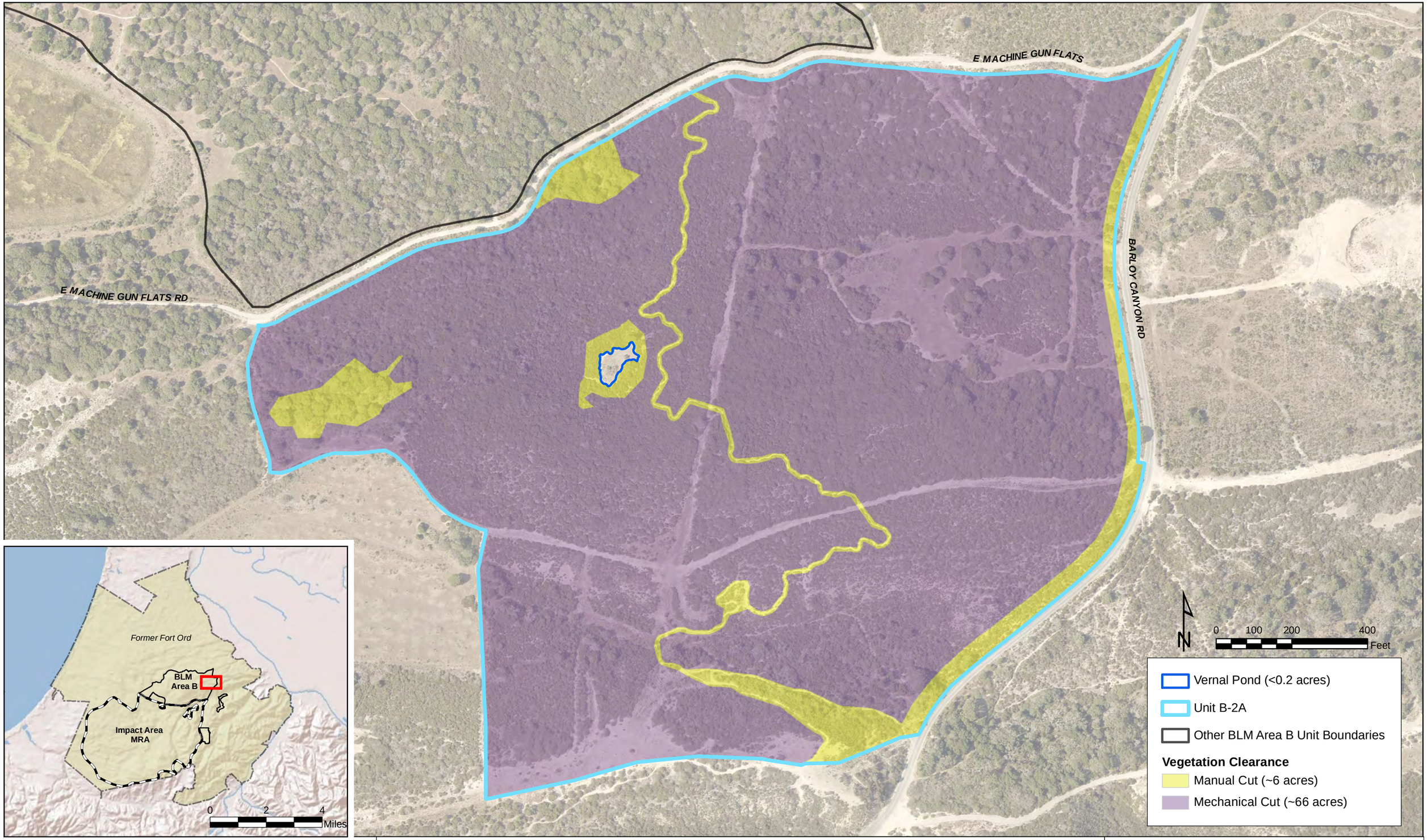

BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 4

Vegetation Clearance

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E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

BARLOY CANYON RD

N

0 100 200 400
Feet

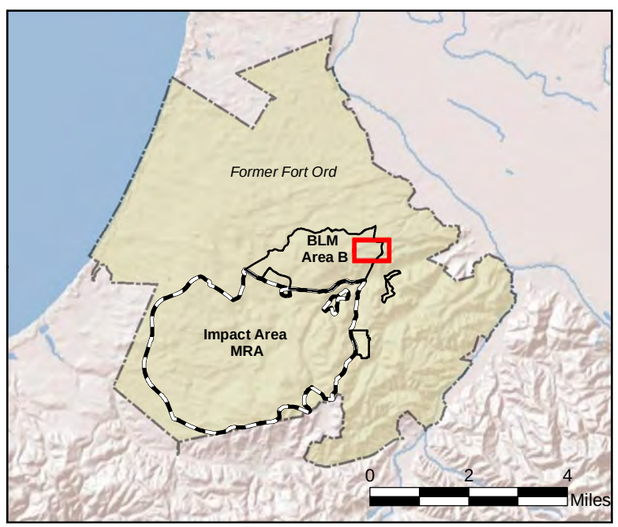
Surface MEC Removal Remedial Work Grids Completed (426 grids)

Unit B-2A

Other BLM Area B Unit Boundaries

Surface MEC Removal - MEC Recovered

- Flare, surface, trip, M49 series
- Fuze, grenade, hand, practice, M228
- Grenade, hand, fragmentation, MK II
- Grenade, hand, riot, CS, M7A3
- Grenade, rifle, smoke, M22 series
- Projectile, 37mm, low explosive, MK I
- Signal, illumination, ground, parachute, M17 series
- Signal, illumination, ground, M127 series
- Signal, illumination, ground, M131
- Projectile, 4.2inch, screening, smoke, FS, M2 series



BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 5

Surface MEC Removal & MEC Recovered

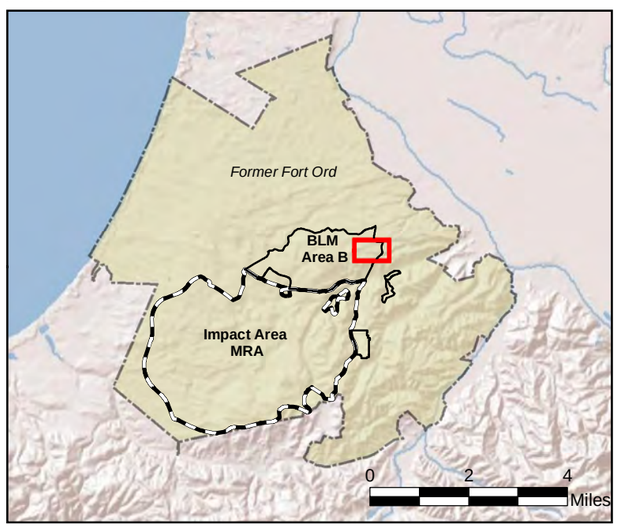
E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

BARLOY CANYON RD

N

0 100 200 400
Feet



Unit B-2A

Other BLM Area B Unit Boundaries

Surface MEC Removal - MD Weight Per Grid
(Total estimated MD removed: 3,968 lbs)

0 - 10 lbs

11 - 25 lbs

26 - 70 lbs

250 lbs*

* Only one grid in the unit contained more than 70 lbs of MD.

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BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 6
Surface MEC Removal
Munitions Debris Weight per Grid

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E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

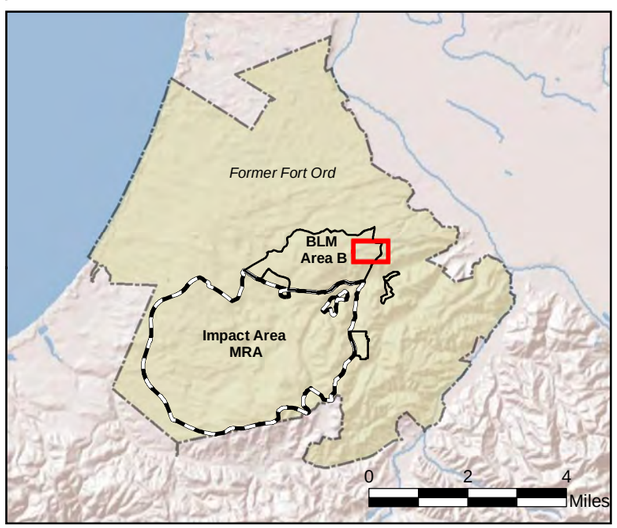
BARLOY CANYON RD

DGM Survey Results
(~64 acres)

19.2
18.5
17.7
16.9
16.2
15.4
14.6
13.8
13.1
12.3
11.5
10.8
10.0
9.2
8.5
7.7
6.9
6.2
5.4
4.6
3.8
3.1
2.3
1.5
0.8
0.0
-0.8
-1.5
-2.3
-3.1
-3.8
-4.6
-5.4
-6.2
-6.9
-7.7
-8.5
-9.2

mV
CH Sum

Negative values can occur in DGM data as a result of minimum curvature gridding and/or levelling the data.



N

0 100 200 400
Feet

Vernal Pond (<0.2 acres)

BLM Area B Unit Boundaries

B-2A Phase Area Boundaries

BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 7

DGM Survey Results

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Vernal Pond (<0.2 acres)
B-2A Phase Area Boundaries
BLM Area B Unit Boundaries

Risk Reduction - Anomaly Investigation Results

- UXO (2 AGC targets)
- MD (11 AGC targets; 19 DGM targets)
- RRD/OD (14 AGC targets;14 DGM targets)
- Unknown (7 AGC targets; 0 DGM targets)
- QC Seed (18 AGC targets; 9 DGM targets)
- Same Anomaly (1 AGC target; 11 DGM targets)
- False Positive (16 AGC targets; 1 DGM target)

E MACHINE GUN FLATS RD

E MACHINE GUN FLATS

BARLOY CANYON RD

SRA

SRA

Projectile, 4.2inch,screening, smoke,FS, M2 series

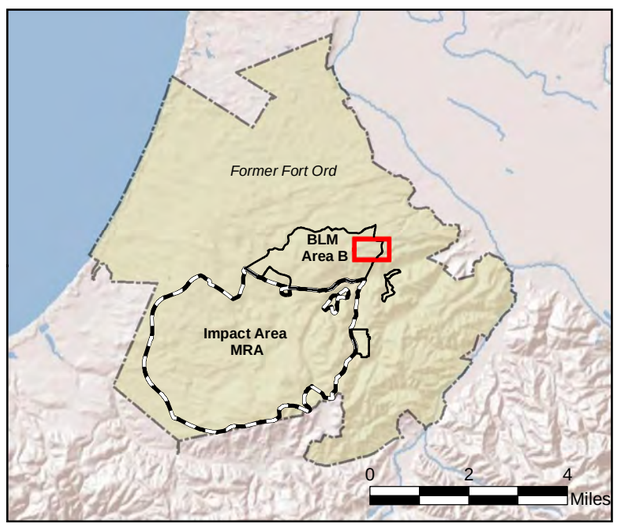
Projectile, 4.2inch, screening, smoke, FS, M2 series

DGM Survey Results (~64 acres)

19.2
18.5
17.7
16.9
16.2
15.4
14.6
13.8
13.1
12.3
11.5
10.8
10.0
9.2
8.5
7.7
6.9
6.2
5.4
4.6
3.8
3.1
2.3
1.5
0.8
0.0
-0.8
-1.5
-2.3
-3.1
-3.8
-4.6
-5.4
-6.2
-6.9
-7.7
-8.5
-9.2

mV
CH Sum

Negative values can occur in DGM data as a result of minimum curvature gridding and/or levelling the data.



This figure displays the results of the AGC and DGM selected targets.

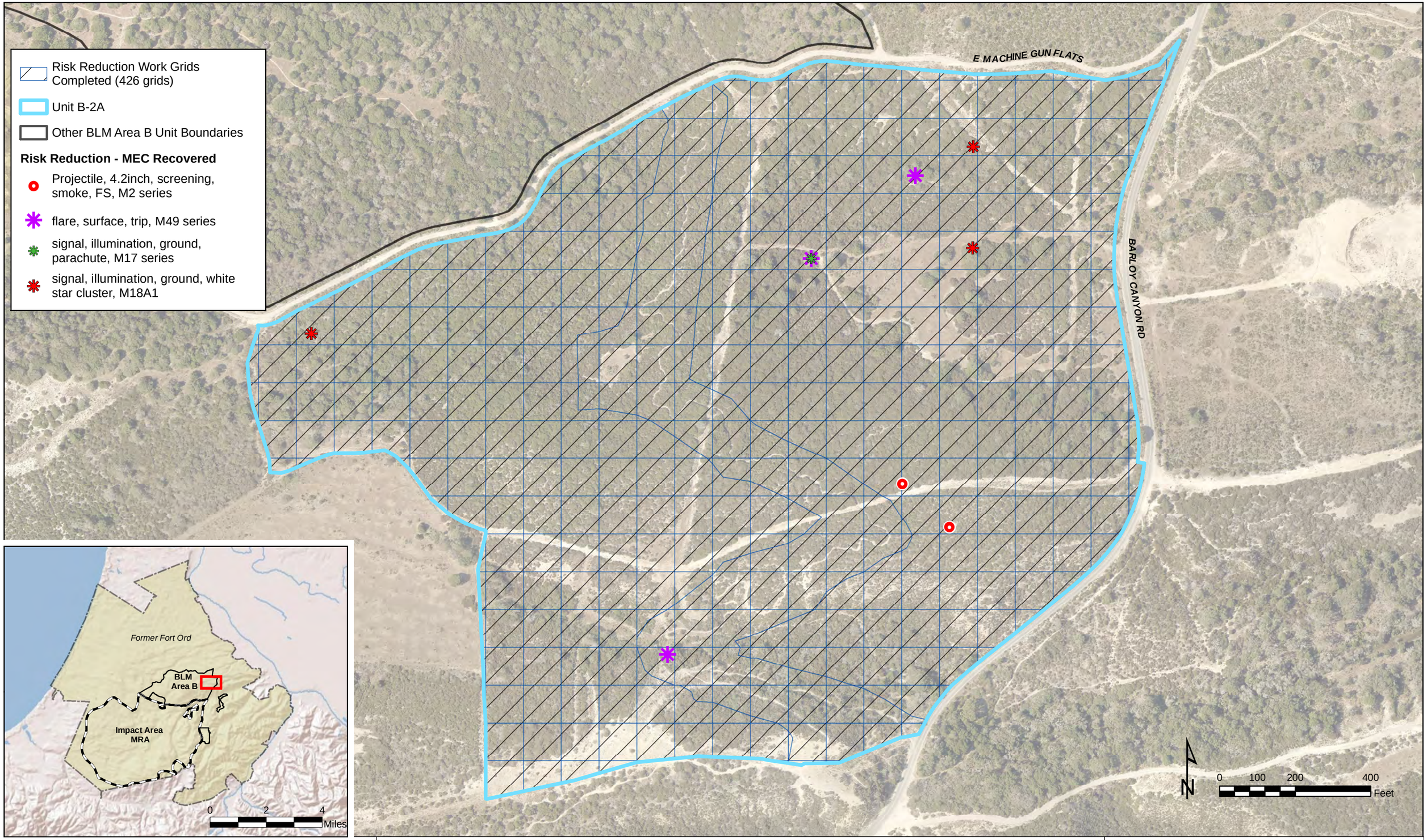
N

0 100 200 400 Feet

BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 8

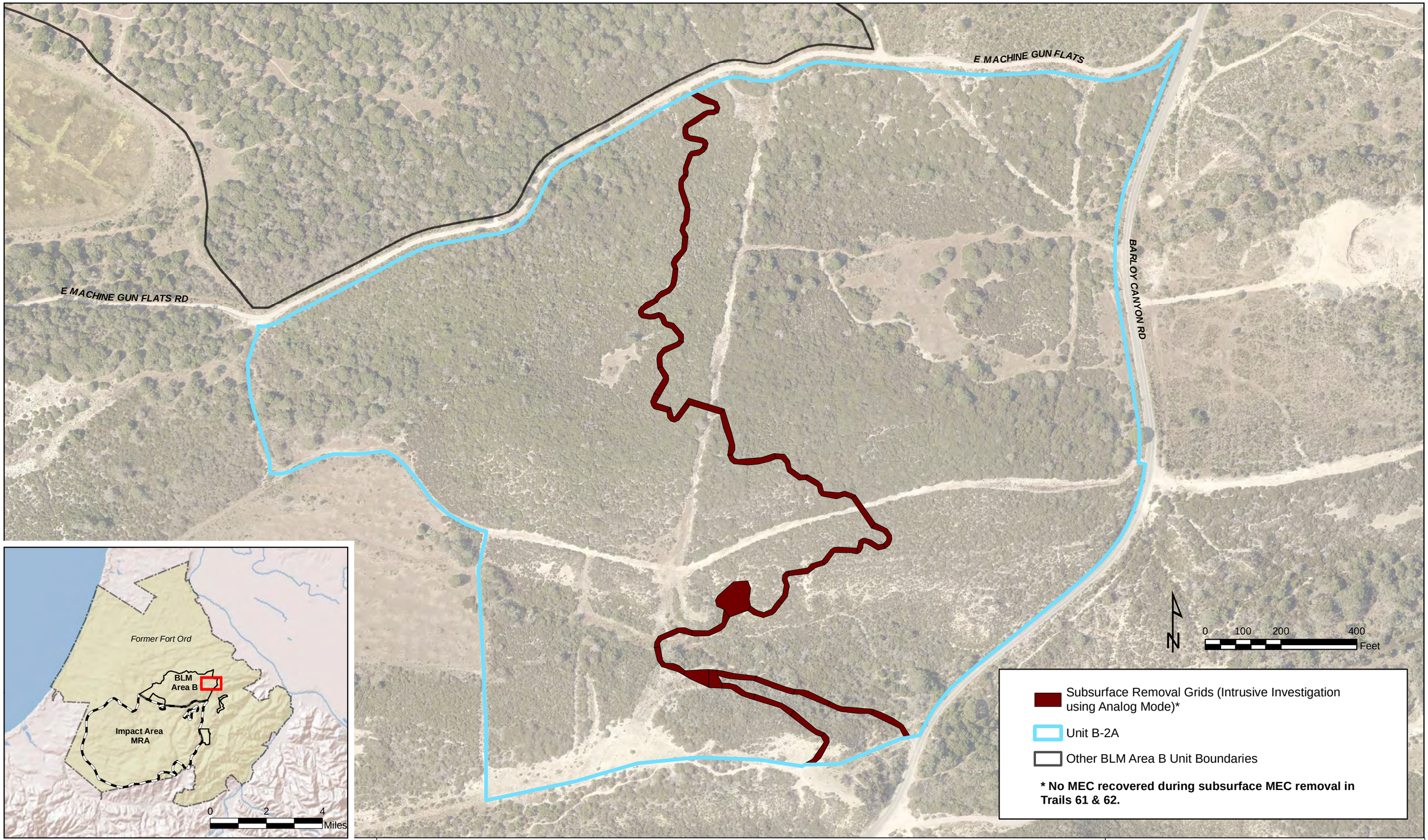
Risk Reduction
Anomaly Investigation Results



BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 9

Risk Reduction MEC Results



BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 10
Trails 61 & 62
Subsurface MEC Removal & MEC Recovered

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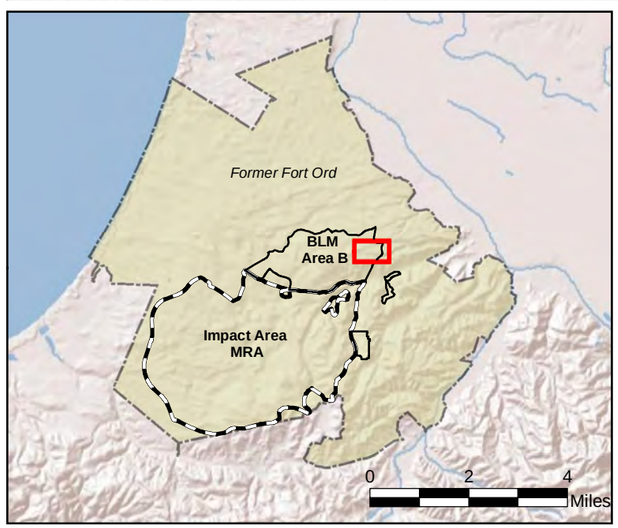
E MACHINE GUN FLATS

E MACHINE GUN FLATS RD

BARLOY CANYON RD



N

0 100 200 400
Feet

BLM Area B Unit Boundaries

Previously Cleared

Limited Subsurface MEC Removal in Planned BLM Restoration Areas

BLM Area B - Unit B-2A
MEC Remedial Action Technical Memorandum
BLM Area B
Former Fort Ord, California

Figure 11

Consideration for Future Remedial Action

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Appendices

Appendix A

Army-BLM Joint Inspection Summary

Remediation Inspection Summary

Subject: Joint Remediation Inspection by the Army and Bureau of Land Management (BLM) of BLM Area B Remedial Work Area (RWA) B-2A

Area of Inspection

Unit B-2A

Date

18 April 2019

Attendees

Eric Morgan, BLM; Curtis Payton, United States Army Corps of Engineers (USACE); James Britt, USACE; Chieko Nozaki, Chenega Tri-Services for Fort Ord Base Realignment and Closure (BRAC); Bark Kowalski, Chenega Tri-Services for BRAC; Betsy Hibbits, Chenega Tri-Services for BRAC

References

1. Final Site Specific Work Plan, Munitions and Explosives of Concern Remedial Action BLM Area B, Former Fort Ord, CA (KEMRON, 2017) (AR#OE-900B).
2. Final Record of Decision (ROD), Track 2, Bureau of Land Management Area B and Munitions Response Site 15, Former Fort Ord, California (United States Department of the Army [Army], 2017) (AR#OE-0897)
3. Final Record of Decision (ROD), Impact Area Munitions Response Area, Track 3 Munitions Response Site, Former Fort Ord, California (United States Department of the Army [Army], 2008) (AR#OE-0647).

Objective

The site visit was conducted on April 18, 2019 with the objective of evaluating the unit's suitability for BLM's planned future use and the possible need for subsurface MEC removal.

Field Discussion

The Army and BLM conducted an inspection of the completed MEC removal actions on April 18, 2019.

Unit B-2A is bounded by East Machine Gun Flats Road to the north and Barloy Canyon Road to the east. The southwest boundary of the unit does not coincide with roads or trials. Participants in the inspection visually assessed the area around Trail 62 including the nearby old road.

The Army conducted surface munitions and explosives of concern (MEC) removal and digital geophysical mapping (DGM) on the entire Unit B-2A (see Figure 1). Advanced Geophysical Classification anomaly selection and cueing were performed followed by removal of two 4.2-

inch mortars identified as targets. Subsurface MEC removal was performed on Trail 62. Surface MEC removal and DGM utilizing the EM61 (person portable) had been performed on the 40-foot wide trail buffer (buffer). Fifty four anomalies had been identified in the buffer at the time of the inspection.

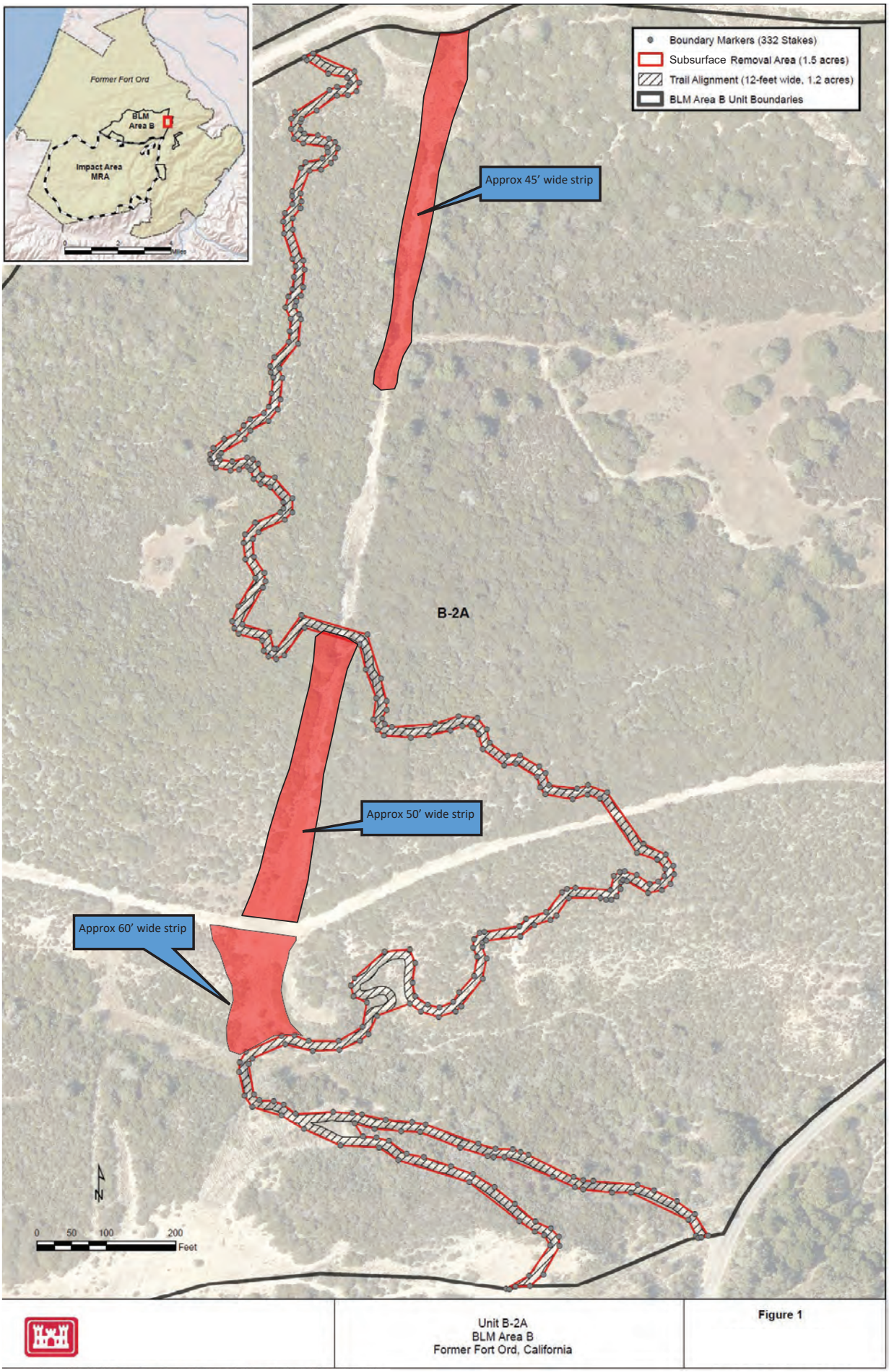
BLM plans to restore sections of the former unpaved road that runs from East Machine Gun Flats south-southwestward through the unit. Restoration would include ripping sections of the trail using equipment with 18-inch tines.

Topics of discussion included the extent of subsurface MEC removal required to support BLM's proposed trail network and erosion restoration work. It is the Army's responsibility to conduct remedial actions that prepare the property for BLM's safe management and use. The Army will provide MEC removal and/or construction support for BLM's future ground-disturbing activities as jointly agreed upon. The inspection examined areas of erosion concern that could require subsurface MEC removal action based on BLM's planned use.

Post-Joint Remediation Inspection Discussion

Following the inspection, Eric Morgan provided a map of areas BLM expects to perform ground-disturbing activities (Figure 1). Eric Morgan provided additional information that the planned restoration was the same treatment within the same footprints as was performed in 2010 through 2012. BLM's Annual Restoration Reports call the area "Army 10 Bravo Sites." A bulldozer was used to rip, reshape, and plant the area. Equipment with 18-inch tines was utilized. Mr. Morgan also noted that the restoration activities planned would be similar in scope to the Trail 15 restoration with the exception that no trail was planned in the restoration area.

USACE Ordnance and Explosives Safety Specialist (OESS) James Britt reviewed the map and determined that areas identified by BLM for "ripping" and seeding operations will require construction support or remedial action in the form of an analog subsurface removal to 24 inches below ground surface. Unit B-2A has had a surface removal completed and a limited subsurface removal for the 4.2" mortar only, with the exception being Trails 61 and 62, which have been cleared to depth within the 12-ft footprint. Unit B-2A cannot be considered "cleared" as it relates to intrusive activities. Munitions and Explosives of Concern (MEC), specifically a 37 mm LE projectile, as well as munitions debris, consisting in part of 60mm projectile fragments, were discovered during surface removal near the identified areas for the "ripping" and seeding operation. After the subsurface removal is accomplished the foot print should be identified as having a 24 inch below ground surface removal completed to prevent confusion on the level of support required in this area if future BLM operations are required.



Unit B-2A
BLM Area B
Former Fort Ord, California

Figure 1

Appendix B

Unit B-2A Quality Control Results

Surface MEC Removal – Quality Control Results

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4C2C0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2C9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2D0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2D9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2E0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2E8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2E9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2F0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2F8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2F9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2G0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2G8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2G9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2H0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2H8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2H9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2I0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2I8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2I9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2J0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2J7	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C2J8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C2J9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3C1	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3C2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3C3	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3C6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3D1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3D7	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3E0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3E1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3E2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3E3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3E4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3E5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3E6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3E8	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3E9	0.1	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4C3F0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3F1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3F2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3F3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3F5	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3F6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3F7	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3F8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3F9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3G5	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3G6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3G7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3G9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3H5	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3H7	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3H8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3H9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3I6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3I7	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3I9	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3J0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C3J6	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4C3J7	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C3J9	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4E1	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4F1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4F2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4G1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4G2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4G3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4H1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4H2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4H3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4H4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4I1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4I2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4I3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4I4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4I5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4C4J1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4J2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4J3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4J4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4J5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4C4J6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2A0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2A3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2A4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2A6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2A7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2A8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2A9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2B3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2B9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2C3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C4	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4D2C5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2C9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D2	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2D3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2D9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2E3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2E9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2F0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2F4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2F5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2F6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2F7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2F8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2F9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2G0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2G6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2G7	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2G8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2G9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2H0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D2H9	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D2I0	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3A0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3A1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3A2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3A3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3A4	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4D3A5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3A6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3A8	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3A9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3B6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3B7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3B9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3C0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3C1	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3C2	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3C3	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3C4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3C5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3C6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3C7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3C8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3C9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D1	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3D4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3D5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3D9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E2	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3E4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3E5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3E9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F2	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4D3F4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3F5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3F9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G3	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3G4	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3G5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3G9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H3	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3H4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3H5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3H9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3I5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3I9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J1	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3J2	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D3J3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D3J8	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4D3J9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4A6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4B1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4B2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4B3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4B4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4B5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4B6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4C1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4C2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4C3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4C4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4C5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4C6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4D1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4D2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4D3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4D4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4D5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4D6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4E1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4E2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4E3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4E4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4E5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4F1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4F2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4F3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4F4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4F5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4G1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4G2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4G3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4G4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4G5	0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4H1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4H2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4H3	0.2	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Primary	Surface MEC Removal	C4D4H4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4H5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4I6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4D4J1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4J2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4J3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4J4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4J5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4D4J6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3A0	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3A3	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3A4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3A5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3A6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3A7	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3A8	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3A9	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E3B0	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3B5	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3B6	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3B7	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3B8	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E3B9	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4A1	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4A2	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4A3	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4A4	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4A5	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4A6	0.2	Yes	Yes
Primary	Surface MEC Removal	C4E4B1	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B2	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B3	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B4	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B5	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B6	0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4B7	<0.1	Yes	Yes
Primary	Surface MEC Removal	C4E4C7	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3C7	<0.1	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Trail Buffer	Surface MEC Removal	C4C3C8	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3D0	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3D6	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3D7	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3D8	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3D9	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E0	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E4	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E5	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E6	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E7	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E8	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3E9	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F5	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F6	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F7	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3F8	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3G3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3G4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3G5	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3G6	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3G7	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H3	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H4	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H5	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H6	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H7	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3H8	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I0	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I5	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I6	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I7	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I8	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3I9	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3J0	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3J6	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3J7	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3J8	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4C3J9	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3A4	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3A5	0.1	Yes	Yes

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Trail Buffer	Surface MEC Removal	C4D3A6	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3A7	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3A8	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3A9	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3B3	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3B4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3B5	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3B6	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3B7	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3C1	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3C2	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3C3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3C4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3C5	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3D1	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3D2	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3D3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3D4	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3E1	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3E2	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3E3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3E4	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3F2	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3F3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3F4	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3G2	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3G3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3G4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3H3	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3H4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3I3	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3I4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3I5	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3J3	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3J4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4D3J5	0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4E3A3	<0.1	Yes	Yes
Trail Buffer	Surface MEC Removal	C4E3A4	0.2	Yes	Yes
Trail Buffer	Surface MEC Removal	C4E3A5	0.1	Yes	Yes

Subsurface MEC Removal – Quality Control Results

Area	Operation	Grid ID	Acreage	QC Complete	QC Objectives Met
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-01	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-02	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-03	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-04	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-05	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-06	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-07	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-08	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-09	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR61-10	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-01	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-02	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-03	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-04	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-05	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-06	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-07	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-08	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-09	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-10	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-11	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-12	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-13	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-14	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-15	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-16	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-17	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-18	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-19	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-20	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-21	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-22	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-23	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-24	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-25	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-26	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-27	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-28	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-29	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-30	<0.1	Yes	Yes
Trails 61 & 62	Subsurface MEC Removal (Analog)	TR62-31	<0.1	Yes	Yes

Risk Reduction – Gap Clearance
Quality Control Results

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4F3	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F5	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4G3	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4F5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A7	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4E1	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J7	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4I5	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4C4	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G6	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3B9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4C2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H3	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2G9	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D8	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2B4	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E5	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I7	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2G0	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J2	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4B4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2B8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E3	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E0	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3D8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2G7	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3D9	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J1	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3C5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2B6	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D9	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2C9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I2	0.04	Yes	Yes

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G9	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3C0	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2G9	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3A1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3B5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2F9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4J6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2B5	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2I0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F0	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D7	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3C9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F9	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4A6	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C6	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3E6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3I5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E6	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2H9	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A8	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3B0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3B9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H9	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4D3	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E2	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F3	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2B3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4H2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4D2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J4	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4H2	0.11	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G0	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D4	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2A9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3D0	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C5	0.19	Yes	Yes

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3D4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3B7	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4G2	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4F2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3I1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A9	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H6	0.07	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H1	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2D0	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2F8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2F5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2C0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4E1	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4H4	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4C5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C3	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3E8	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I3	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E4	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2A8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3E9	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2H9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H8	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4E2	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4G4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A1	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3J2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3E5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C2	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J1	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4D1	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I0	0.10	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D0	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4B5	0.07	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2D9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4B1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4F2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A6	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I2	0.11	Yes	Yes

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2F0	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G7	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I1	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G8	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H7	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4F1	0.10	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4B7	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3D5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4I2	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4F4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G2	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E7	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2G8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F2	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F7	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C7	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3D5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4A5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H0	0.12	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4G1	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G1	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4B3	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J0	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J6	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3D4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2I8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4H4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2H8	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G5	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4G5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4J4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3B8	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A3	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H5	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4C1	0.04	Yes	Yes

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F0	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4I3	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4H3	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2F9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3J1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2E0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2A3	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F7	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4G3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A2	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4B5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2I0	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4G1	0.15	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D5	0.10	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3A8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3H1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3J6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E3A0	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J5	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4F1	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3F4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4C3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3G8	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2E9	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4J5	0.06	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4D4	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2I9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2H0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3I6	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4B6	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E4	0.05	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I8	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3B5	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3E7	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3I2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I6	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F6	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2J9	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3G6	0.03	Yes	Yes

Area	Operation	Grid Containing Gap	Gap Acreage	QC Complete	QC Objectives Met
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4H3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D6	0.09	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2G0	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2D3	0.03	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4J3	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4B6	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I3	0.02	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3H2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3J6	0.00	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3I1	0.18	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2C4	0.15	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3I4	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4I4	0.15	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2H0	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4I6	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D2F0	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3D1	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C2J8	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4H1	0.08	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D4H5	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C4G2	0.19	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3F8	0.04	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3J7	<0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4D3A2	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4E4A5	0.01	Yes	Yes
Primary	Risk Reduction - Gap Clearance (Analog)	C4C3E6	0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3E5	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3E0	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3F3	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3H7	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3F7	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3F6	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3F4	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3E4	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4D3B5	<0.01	Yes	Yes
Trail Buffer	Risk Reduction - Gap Clearance (Analog)	C4C3E6	<0.01	Yes	Yes

Digital Geophysical Mapping – Quality Control Results

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C2C01	C4C2C0	0.16	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2D0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2E0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2F0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2G0	0.23	Modified A	1/17/2018	1/25/2018	Y	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2H0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2I0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4C2J0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2A0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2B0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2C0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2D0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2E0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2F0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2G0	0.23	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2H0	0.19	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C2C01	C4D2I0	0.06	Modified A	1/17/2018	1/25/2018	N	3/12/2018	0	AZK
B-2A	C4C3J21	C4C3C2	0.04	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3D2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3E2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3F2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3G2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3H2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3I2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4C3J2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4D3A2	0.23	Modified A	2/1/2018	2/6/2018	Y	3/13/2018	0	AZK
B-2A	C4C3J21	C4D3B2	0.23	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK
B-2A	C4C3J21	C4D3C2	0.07	Modified A	2/1/2018	2/6/2018	N	3/13/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3B71	C4D3A7	0.00	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3B7	0.19	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3C7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3D7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3E7	0.23	Modified A	2/7/2018	2/12/2018	Y	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3F7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3G7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3H7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3I7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4D3J7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4E3A7	0.23	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D3B71	C4E3B7	0.09	Modified A	2/7/2018	2/12/2018	N	3/14/2018	0	AZK
B-2A	C4D2B81	C4C2J8	0.16	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2A8	0.23	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2B8	0.23	Modified A	1/29/2018	1/30/2018	Y	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2C8	0.23	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2D8	0.23	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2E8	0.23	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2F8	0.23	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2B81	C4D2G8	0.19	Modified A	1/29/2018	1/30/2018	N	3/15/2018	0	AZK
B-2A	C4D2A71	C4C2J7	0.03	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2A3	0.06	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2A4	0.02	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2A6	0.01	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2A7	0.19	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2B2	0.00	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2B3	0.20	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2B4	0.22	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D2A71	C4D2B5	0.20	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2B6	0.20	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2B7	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C2	0.04	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C3	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C4	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C5	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C6	0.23	Modified A	2/1/2018	2/9/2018	Y	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2C7	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D2	0.06	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D3	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D4	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D5	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D6	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2D7	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E2	0.01	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E3	0.15	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E4	0.23	Modified A	2/1/2018	2/9/2018	Y	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E5	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E6	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2E7	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2F4	0.04	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2F5	0.15	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2F6	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2F7	0.23	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2G6	0.04	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D2A71	C4D2G7	0.14	Modified A	2/1/2018	2/9/2018	N	3/16/2018	0	AZK
B-2A	C4D3A81	C4D3A8	0.08	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3A81	C4D3B8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3C8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3D8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3E8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3F8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3G8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3H8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3I8	0.23	Modified A	2/12/2018	2/15/2018	Y	3/19/2018	0	AZK
B-2A	C4D3A81	C4D3J8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4E3A8	0.23	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4D3A81	C4E3B8	0.11	Modified A	2/12/2018	2/15/2018	N	3/19/2018	0	AZK
B-2A	C4C2C91	C4C2C9	0.21	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2D9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2E8	0.01	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2E9	0.23	Modified A	1/29/2018	3/1/2018	Y	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2F8	0.02	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2F9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2G8	0.03	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2G9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2H8	0.04	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2H9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2I8	0.02	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2I9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4C2J9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2A9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2B9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2C9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2D9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C2C91	C4D2E9	0.23	Modified A	1/29/2018	3/1/2018	Y	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2F9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2G9	0.23	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4C2C91	C4D2H9	0.02	Modified A	1/29/2018	3/1/2018	N	3/22/2018	0	AZK
B-2A	C4D3C41	C4D3C4	0.01	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3C5	0.12	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3D4	0.14	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3D5	0.23	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3E4	0.11	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3E5	0.23	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3F4	0.09	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3F5	0.23	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3G4	0.06	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3G5	0.23	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3H4	0.03	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3H5	0.23	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3I4	0.00	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3I5	0.22	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4D3J5	0.19	Modified A	2/13/2018	3/6/2018	Y	3/26/2018	0	AZK
B-2A	C4D3C41	C4E3A4	0.00	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4E3A5	0.17	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3C41	C4E3B5	0.01	Modified A	2/13/2018	3/6/2018	N	3/26/2018	0	AZK
B-2A	C4D3B61	C4D3B5	0.00	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3B6	0.08	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3C6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3D6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3E6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3F6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3B61	C4D3G6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3H6	0.23	Modified A	2/14/2018	3/7/2018	Y	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3I6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4D3J6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4E3A6	0.23	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3B61	C4E3B6	0.01	Modified A	2/14/2018	3/7/2018	N	3/27/2018	0	AZK
B-2A	C4D3I21	C4D3E1	0.19	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3E2	0.09	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3F1	0.23	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3F2	0.20	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3G1	0.23	Modified A	1/11/2018	3/8/2018	Y	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3G2	0.23	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3G3	0.01	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3H1	0.23	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3H2	0.23	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3H3	0.06	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3I1	0.22	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3I2	0.23	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3I3	0.12	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3J1	0.02	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3J2	0.14	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4D3J3	0.17	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3I21	C4E3A3	0.02	Modified A	1/11/2018	3/8/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3C1	0.11	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3D1	0.23	Modified A	1/16/2018	3/12/2018	Y	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3E1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3F1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3G1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3D11	C4C3H1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3I1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4C3J1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4D3A1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4D3B1	0.23	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4D3C1	0.15	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4D3D11	C4D3D1	0.11	Modified A	1/16/2018	3/12/2018	N	3/28/2018	0	AZK
B-2A	C4C4J21	C4C4G2	0.21	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4C4H2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4C4I2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4C4J2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4A2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4B2	0.23	Modified A	2/26/2018	3/14/2018	Y	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4C2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4D2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4E2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4F2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4G2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4H2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4I2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4D4J2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4E4A2	0.23	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C4J21	C4E4B2	0.04	Modified A	2/26/2018	3/14/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3C3	0.00	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3C6	0.00	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3C7	0.00	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3D3	0.22	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3D4	0.21	Modified A	2/6/2018	3/12/2018	Y	4/4/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C3H31	C4C3D5	0.21	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3D6	0.22	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3D7	0.02	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3E3	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3E4	0.18	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3E5	0.10	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3E6	0.02	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3F3	0.08	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3G3	0.06	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3H3	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3H4	0.12	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3H5	0.00	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3I3	0.23	Modified A	2/6/2018	3/12/2018	Y	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3I4	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3I5	0.17	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3I6	0.11	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3I7	0.02	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3J3	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3J4	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3J5	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3J6	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4C3J7	0.14	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3A3	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3A4	0.23	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3A5	0.13	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3A6	0.05	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3B3	0.21	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3H31	C4D3B4	0.07	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C3H31	C4D3C3	0.01	Modified A	2/6/2018	3/12/2018	N	4/4/2018	0	AZK
B-2A	C4C3J91	C4C3J9	0.04	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3A9	0.21	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3B9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3C9	0.23	Modified A	2/21/2018	3/19/2018	Y	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3D9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3E9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3F9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3G9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3H9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3I9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4D3J9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4E3A9	0.23	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C3J91	C4E3B9	0.08	Modified A	2/21/2018	3/19/2018	N	4/5/2018	0	AZK
B-2A	C4C4J31	C4C4G3	0.05	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4C4H3	0.22	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4C4H4	0.09	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4C4I3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4C4J3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4A3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4B3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4C3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4D3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4E3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4F3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4G3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4H3	0.23	Modified A	2/27/2018	3/26/2018	Y	4/16/2018	0	AZK
B-2A	C4C4J31	C4D4I3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C4J31	C4D4J3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4E4A3	0.23	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J31	C4E4B3	0.05	Modified A	2/27/2018	3/26/2018	N	4/16/2018	0	AZK
B-2A	C4C4J41	C4C4I4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4C4J4	0.23	Modified A	3/6/2018	3/27/2018	Y	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4A4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4B4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4C4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4D4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4E4	0.23	Modified A	3/6/2018	3/27/2018	Y	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4F4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4G4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4H4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4I4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4D4J4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4E4A4	0.23	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C4J41	C4E4B4	0.03	Modified A	3/6/2018	3/27/2018	N	4/17/2018	0	AZK
B-2A	C4C3I91	C4C3I8	0.00	Modified A	3/14/2018	3/28/2018	N	4/18/2018	0	AZK
B-2A	C4C3I91	C4C3I9	0.09	Modified A	3/14/2018	3/28/2018	Y	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3E0	0.18	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3E8	0.00	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3E9	0.09	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F0	0.23	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F5	0.03	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F6	0.09	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F7	0.16	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F8	0.22	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3F9	0.23	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK

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B-2A	C4C3F91	C4C3G0	0.23	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3G5	0.02	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3G6	0.13	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3G7	0.22	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3G8	0.23	Modified A	3/13/2018	3/29/2018	Y	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3G9	0.23	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3H7	0.02	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3H8	0.19	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C3H9	0.23	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C4E1	0.01	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C4F1	0.18	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3F91	C4C4F2	0.02	Modified A	3/13/2018	3/29/2018	N	4/18/2018	0	AZK
B-2A	C4C3J01	C4C3H0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4C3I0	0.21	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4C3J0	0.22	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3A0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3B0	0.23	Modified A	2/20/2018	3/16/2018	Y	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3C0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3D0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3E0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3F0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3G0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3H0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3I0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4D3J0	0.23	Modified A	2/20/2018	3/16/2018	Y	4/20/2018	0	AZK
B-2A	C4C3J01	C4E3A0	0.23	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C3J01	C4E3B0	0.07	Modified A	2/20/2018	3/16/2018	N	4/20/2018	0	AZK
B-2A	C4C4J11	C4C4G1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C4J11	C4C4H1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4C4I1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4C4J1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4A1	0.23	Modified A	2/22/2018	3/20/2018	Y	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4B1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4C1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4D1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4E1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4F1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4G1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4H1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4I1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4D4J1	0.23	Modified A	2/22/2018	3/20/2018	Y	4/23/2018	0	AZK
B-2A	C4C4J11	C4E4A1	0.23	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J11	C4E4B1	0.05	Modified A	2/22/2018	3/20/2018	N	4/23/2018	0	AZK
B-2A	C4C4J51	C4C4I5	0.09	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4C4J5	0.22	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4C4J6	0.02	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4A5	0.23	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4A6	0.08	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4B5	0.23	Modified A	3/12/2018	4/3/2018	Y	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4B6	0.06	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4C5	0.23	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4C6	0.03	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4D5	0.22	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4D6	0.00	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4E5	0.19	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4F5	0.15	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C4J51	C4D4G5	0.14	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4H5	0.17	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4I5	0.22	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4I6	0.01	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4J5	0.23	Modified A	3/12/2018	4/3/2018	Y	4/24/2018	0	AZK
B-2A	C4C4J51	C4D4J6	0.08	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4A5	0.23	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4A6	0.17	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4B5	0.01	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4B6	0.07	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4B7	0.02	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4C4J51	C4E4C7	0.00	Modified A	3/12/2018	4/3/2018	N	4/24/2018	0	AZK
B-2A	C4E3A31P	C4E3A3	0.02	Modified A	3/11/2019	3/19/2019	N	4/1/2019	0	AZK
B-2A	C4E3A31P	C4E3A4	0.16	Modified A	3/11/2019	3/19/2019	Y	4/1/2019	0	AZK
B-2A	C4E3A31P	C4E3A5	0.06	Modified A	3/11/2019	3/19/2019	N	4/1/2019	0	AZK
B-2A	C4D3I51P	C4D3I5	0.01	Modified A	3/14/2019	3/18/2019	N	4/1/2019	0	AZK
B-2A	C4C3C71P	C4C3C7	0.02	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3C8	0.01	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3D0	0.08	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3D7	0.21	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3D8	0.22	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3D9	0.16	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E0	0.02	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E5	0.13	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E6	0.21	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E7	0.23	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E8	0.23	Modified A	3/12/2019	3/21/2019	Y	4/4/2019	0	AZK
B-2A	C4C3C71P	C4C3E9	0.14	Modified A	3/12/2019	3/21/2019	N	4/4/2019	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4C3F41P	C4C3F4	0.23	Modified A	3/13/2019	3/22/2019	Y	4/4/2019	0	AZK
B-2A	C4C3F41P	C4C3F5	0.20	Modified A	3/13/2019	3/22/2019	N	4/4/2019	0	AZK
B-2A	C4C3F61P	C4C3F6	0.13	Modified A	3/13/2019	3/20/2019	Y	4/4/2019	0	AZK
B-2A	C4C3F61P	C4C3F7	0.07	Modified A	3/13/2019	3/20/2019	N	4/4/2019	0	AZK
B-2A	C4C3F61P	C4C3F8	0.01	Modified A	3/13/2019	3/20/2019	N	4/4/2019	0	AZK
B-2A	C4D3J31P	C4D3J3	0.06	Modified A	3/14/2019	3/25/2019	N	4/4/2019	0	AZK
B-2A	C4D3J31P	C4D3J4	0.23	Modified A	3/14/2019	3/25/2019	Y	4/4/2019	0	AZK
B-2A	C4D3J31P	C4D3J5	0.04	Modified A	3/14/2019	3/25/2019	N	4/4/2019	0	AZK
B-2A	C4C3J61P	C4C3J0	0.01	Modified A	3/28/2019	4/5/2019	N	4/8/2019	0	AZK
B-2A	C4C3J61P	C4C3J6	0.00	Modified A	3/28/2019	4/5/2019	N	4/8/2019	0	AZK
B-2A	C4C3J61P	C4C3J7	0.09	Modified A	3/28/2019	4/5/2019	N	4/8/2019	0	AZK
B-2A	C4C3J61P	C4C3J8	0.23	Modified A	3/28/2019	4/5/2019	Y	4/8/2019	0	AZK
B-2A	C4C3J61P	C4C3J9	0.19	Modified A	3/28/2019	4/5/2019	N	4/8/2019	0	AZK
B-2A	C4D3A61P	C4D3A6	0.17	Modified A	3/27/2019	4/2/2019	Y	4/8/2019	0	AZK
B-2A	C4D3A71P	C4D3A7	0.23	Modified A	3/28/2019	4/4/2019	Y	4/8/2019	0	AZK
B-2A	C4D3A71P	C4D3A8	0.14	Modified A	3/28/2019	4/4/2019	N	4/8/2019	0	AZK
B-2A	C4D3A71P	C4D3A9	0.01	Modified A	3/28/2019	4/4/2019	N	4/8/2019	0	AZK
B-2A	C4D3B31P	C4D3A4	0.00	Modified A	3/27/2019	4/1/2019	N	4/8/2019	0	AZK
B-2A	C4D3B31P	C4D3A5	0.10	Modified A	3/27/2019	4/1/2019	N	4/8/2019	0	AZK
B-2A	C4D3B31P	C4D3B3	0.02	Modified A	3/27/2019	4/1/2019	N	4/8/2019	0	AZK
B-2A	C4D3B31P	C4D3B4	0.16	Modified A	3/27/2019	4/1/2019	N	4/8/2019	0	AZK
B-2A	C4D3B31P	C4D3B5	0.23	Modified A	3/27/2019	4/1/2019	Y	4/8/2019	0	AZK
B-2A	C4D3B61P	C4D3B6	0.15	Modified A	3/27/2019	4/3/2019	Y	4/8/2019	0	AZK
B-2A	C4D3B61P	C4D3B7	0.04	Modified A	3/27/2019	4/3/2019	N	4/8/2019	0	AZK
B-2A	C4D3F21P	C4D3F2	0.03	Modified A	3/27/2019	3/28/2019	N	4/8/2019	0	AZK
B-2A	C4D3F21P	C4D3F3	0.23	Modified A	3/27/2019	3/28/2019	Y	4/8/2019	0	AZK
B-2A	C4D3F21P	C4D3F4	0.14	Modified A	3/27/2019	3/28/2019	N	4/8/2019	0	AZK
B-2A	C4D3G21P	C4D3G2	0.00	Modified A	3/26/2019	3/28/2019	N	4/8/2019	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3G21P	C4D3G3	0.22	Modified A	3/26/2019	3/28/2019	Y	4/8/2019	0	AZK
B-2A	C4D3G21P	C4D3G4	0.17	Modified A	3/26/2019	3/28/2019	N	4/8/2019	0	AZK
B-2A	C4D3H31P	C4D3H3	0.17	Modified A	3/19/2019	3/26/2019	Y	4/8/2019	0	AZK
B-2A	C4D3H31P	C4D3H4	0.20	Modified A	3/19/2019	3/26/2019	N	4/8/2019	0	AZK
B-2A	C4D3I31P	C4D3I3	0.11	Modified A	3/18/2019	3/25/2019	N	4/8/2019	0	AZK
B-2A	C4D3I31P	C4D3I4	0.23	Modified A	3/18/2019	3/25/2019	Y	4/8/2019	0	AZK
B-2A	C4C3F31P	C4C3F3	0.15	Modified A	4/3/2019	4/8/2019	N	4/11/2019	0	AZK
B-2A	C4C3F31P	C4C3G3	0.17	Modified A	4/3/2019	4/8/2019	N	4/11/2019	0	AZK
B-2A	C4C3F31P	C4C3G4	0.23	Modified A	4/3/2019	4/8/2019	Y	4/11/2019	0	AZK
B-2A	C4C3G51P	C4C3G5	0.20	Modified A	4/2/2019	4/9/2019	Y	4/11/2019	0	AZK
B-2A	C4C3G51P	C4C3G6	0.10	Modified A	4/2/2019	4/9/2019	N	4/11/2019	0	AZK
B-2A	C4C3G51P	C4C3G7	0.01	Modified A	4/2/2019	4/9/2019	N	4/11/2019	0	AZK
B-2A	C4C3H31P	C4C3H3	0.00	Modified A	4/2/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3H31P	C4C3H4	0.11	Modified A	4/2/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3H31P	C4C3H5	0.23	Modified A	4/2/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3H31P	C4C3H6	0.23	Modified A	4/2/2019	4/11/2019	Y	4/16/2019	0	AZK
B-2A	C4C3H31P	C4C3H7	0.21	Modified A	4/2/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3H31P	C4C3H8	0.04	Modified A	4/2/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I0	0.02	Modified A	4/1/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I5	0.06	Modified A	4/1/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I6	0.12	Modified A	4/1/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I7	0.21	Modified A	4/1/2019	4/11/2019	Y	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I8	0.23	Modified A	4/1/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4C3I51P	C4C3I9	0.14	Modified A	4/1/2019	4/11/2019	N	4/16/2019	0	AZK
B-2A	C4D3C11P	C4D3C1	0.08	Modified A	3/28/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3C11P	C4D3C2	0.16	Modified A	3/28/2019	4/12/2019	Y	4/16/2019	0	AZK
B-2A	C4D3C11P	C4D3D1	0.12	Modified A	3/28/2019	4/12/2019	N	4/16/2019	1	AZK
B-2A	C4D3C11P	C4D3D2	0.23	Modified A	3/28/2019	4/12/2019	N	4/16/2019	0	AZK

Unit	Dataset ID	Grid ID	Size Acre	Category*	DGM Date	Geo Data Processed & Submitted	Selected for QC Reprocessing**	Date Geo Data QC Complete***	Number of QC Targets	QC Complete Initials
B-2A	C4D3C11P	C4D3E1	0.03	Modified A	3/28/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3C11P	C4D3E2	0.14	Modified A	3/28/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3C31P	C4D3C3	0.22	Modified A	3/26/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3C31P	C4D3C4	0.22	Modified A	3/26/2019	4/12/2019	Y	4/16/2019	0	AZK
B-2A	C4D3C31P	C4D3C5	0.10	Modified A	3/26/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3D31P	C4D3D3	0.23	Modified A	3/25/2019	4/12/2019	Y	4/16/2019	0	AZK
B-2A	C4D3D31P	C4D3D4	0.09	Modified A	3/25/2019	4/12/2019	N	4/16/2019	0	AZK
B-2A	C4D3E31P	C4D3E3	0.23	Modified A	3/25/2019	4/13/2019	Y	4/16/2019	0	AZK
B-2A	C4D3E31P	C4D3E4	0.12	Modified A	3/25/2019	4/13/2019	N	4/16/2019	0	AZK

*Modified Category A: As detailed in Section 2.1.3, a lane spacing of 2 ft. is to be used for the towed array. 95% (or greater) of the lane spacing is to be at the project design lane spacing of 2 ft. 99.5% of the lane spacing is to be at 3 ft. No unexplained data gaps.
**DGM data (10 % per data set or grid) is required to be reprocessed by the QC Geophysicist in accordance with GEO SOP 8 of the MEC QAPP (KEMRON, 2016). Reprocessing of selected DGM datasets verified proper functioning of the DGM system and proper processing and analysis of the DGM data.
***Data QC for the Primary area was completed in 2018 and data QC for the Trail Buffer area was completed in 2019.

Risk Reduction - Digital Geophysical Mapping Selected Targets

Quality Control Results

Area	Grid ID	Unique Target ID	Channel Sum (mV)*	Dig Date	QC Date	Anomaly Still Present After QC	GeoQC Passed	QC mV**	QC Comments**
Trail Buffer	C4C3D0	C4C3D0-0001	214.29	5/8/2019	5/9/2019	Y	Y	45	(Pieces of Fence Post) Approved by GEO QC.
Trail Buffer	C4C3D0	C4C3D0-0002	210.62	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3D0	C4C3D0-0003	328.18	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3D0	C4C3D0-0004	1477.13	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E0	C4C3E0-0001	429.99	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E0	C4C3E0-0002	1046.41	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E0	C4C3E0-0003	730.49	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E7	C4C3E7-0001	1081.07	5/6/2019	5/9/2019	Y	Y	90	(Trash Pit) Approved by GEO QC.
Trail Buffer	C4C3E7	C4C3E7-0002	1050.15	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E7	C4C3E7-0003	724.16	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E7	C4C3E7-0004	1080.34	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E7	C4C3E7-0005	463.77	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E8	C4C3E8-0001	720.72	5/8/2019	5/9/2019	Y	Y	150	(Trash Pit) Approved by GEO QC.
Trail Buffer	C4C3E8	C4C3E8-0002	198.73	5/7/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E8	C4C3E8-0003	180.97	5/7/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3E8	C4C3E8-0004	216.95	5/8/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3D3	C4D3D3-0001	254.10	4/23/2019	5/9/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F3	C4C3F3-0001	401.16	4/23/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F4	C4C3F4-0001	606.89	4/23/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F5	C4C3F5-0001	332.44	4/23/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F5	C4C3F5-0002	280.09	4/22/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F6	C4C3F6-0001	344.31	4/22/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F6	C4C3F6-0002	302.17	4/22/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3F7	C4C3F7-0001	338.22	4/22/2019	5/8/2019	Y	Y	6	(<50 mV) Approved by GEO QC.
Trail Buffer	C4C3F8	C4C3F8-0001	561.06	4/24/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3G4	C4C3G4-0001	270.16	4/25/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3I7	C4C3I7-0001	185.00	4/25/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3J7	C4C3J7-0001	318.14	4/25/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4C3J7	C4C3J7-0002	247.84	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.

Area	Grid ID	Unique Target ID	Channel Sum (mV)*	Dig Date	QC Date	Anomaly Still Present After QC	GeoQC Passed	QC mV**	QC Comments**
Trail Buffer	C4D3A5	C4D3A5-0001	349.66	4/29/2019	5/8/2019	Y	Y	15	(<50 mV) Approved by GEO QC.
Trail Buffer	C4D3A6	C4D3A6-0001	231.38	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3B5	C4D3B5-0001	211.88	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3C1	C4D3C1-0001	244.34	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3C4	C4D3C4-0001	367.70	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3C5	C4D3C5-0001	309.76	4/29/2019	5/8/2019	Y	Y	12	(<50 mV) Approved by GEO QC.
Trail Buffer	C4D3C5	C4D3C5-0002	180.77	4/29/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3D1	C4D3D1-7001	179.03	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3E2	C4D3E2-0001	196.46	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3F3	C4D3F3-0001	207.80	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3G3	C4D3G3-0001	223.98	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3G3	C4D3G3-0002	200.21	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3G3	C4D3G3-0003	187.42	4/30/2019	5/8/2019	N	Y	3	< 4.2 mV.
Trail Buffer	C4D3G3	C4D3G3-0004	169.88	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3G3	C4D3G3-0005	135.65	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3H3	C4D3H3-0001	185.31	4/30/2019	5/8/2019	N	Y	3	< 4.2 mV.
Trail Buffer	C4D3I3	C4D3I3-0001	581.00	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3I4	C4D3I4-0001	220.25	4/30/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3J3	C4D3J3-0001	405.74	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3J4	C4D3J4-0001	975.14	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4D3J4	C4D3J4-0002	410.23	5/1/2019	5/8/2019	N	Y	3	< 4.2 mV.
Trail Buffer	C4E3A4	C4E3A4-0001	309.93	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4E3A4	C4E3A4-0002	227.14	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4E3A4	C4E3A4-0003	187.12	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.
Trail Buffer	C4E3A4	C4E3A4-0004	178.10	5/1/2019	5/8/2019	N	Y	0	< 4.2 mV.

*This is the initial reading when identifying a target.

** A threshold of channel 2 response values greater than or equal to 50mV (equivalent to the 185mV sum channel detection threshold) was used for the QC of the risk reduction operation. A threshold above the standard, 4.2mV, was used for the risk reduction. The risk reduction included the removal of large anomaly sources that could be associated with 4.2-inch mortar.

Appendix C

Unit B-2A Quality Assurance Results (Not Including Digital Geophysical Operations)

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-01	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-02	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR61-03	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-04	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-05	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-06	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-07	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR61-08	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR61-09	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR61-10	UXO QA 1	Yes
10/1/2018	0.05	Analog	Trails 61 & 62	TR62-01	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-02	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-03	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-04	UXO QA 1	Yes
10/1/2018	0.14	Analog	Trails 61 & 62	TR62-05	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-06	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-07	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-08	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-09	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-10	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-11	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-12	UXO QA 1	Yes
10/1/2018	0.05	Analog	Trails 61 & 62	TR62-13	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-14	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-15	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-16	UXO QA 1	Yes
10/1/2018	0.04	Analog	Trails 61 & 62	TR62-17	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-18	UXO QA 1	Yes
10/1/2018	0.02	Analog	Trails 61 & 62	TR62-19	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-20	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-21	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-22	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-23	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-24	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-25	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-26	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-27	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-28	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-29	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-30	UXO QA 1	Yes
10/1/2018	0.03	Analog	Trails 61 & 62	TR62-31	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
11/16/2017	0.16	Analog	Primary	C4C2C0	UXO QA 1	Yes
11/16/2017	0.21	Analog	Primary	C4C2C9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2D0	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2D9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2E0	UXO QA 1	Yes
11/16/2017	0.01	Analog	Primary	C4C2E8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2E9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2F0	UXO QA 1	Yes
11/16/2017	0.02	Analog	Primary	C4C2F8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2F9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2G0	UXO QA 1	Yes
11/16/2017	0.03	Analog	Primary	C4C2G8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2G9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2H0	UXO QA 1	Yes
11/16/2017	0.04	Analog	Primary	C4C2H8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2H9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2I0	UXO QA 1	Yes
11/16/2017	0.02	Analog	Primary	C4C2I8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2I9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2J0	UXO QA 1	Yes
11/16/2017	0.03	Analog	Primary	C4C2J7	UXO QA 1	Yes
11/16/2017	0.16	Analog	Primary	C4C2J8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4C2J9	UXO QA 1	Yes
11/29/2017	0.11	Analog	Primary	C4C3C1	UXO QA 1	Yes
11/29/2017	0.04	Analog	Primary	C4C3C2	UXO QA 1	Yes
11/29/2017	<0.01	Analog	Primary	C4C3C3	UXO QA 1	Yes
11/29/2017	<0.01	Analog	Primary	C4C3C6	UXO QA 1	Yes
11/29/2017	<0.01	Analog	Primary	C4C3C7	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3D1	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3D2	UXO QA 1	Yes
11/29/2017	0.22	Analog	Primary	C4C3D3	UXO QA 1	Yes
11/29/2017	0.21	Analog	Primary	C4C3D4	UXO QA 1	Yes
11/29/2017	0.21	Analog	Primary	C4C3D5	UXO QA 1	Yes
11/29/2017	0.22	Analog	Primary	C4C3D6	UXO QA 1	Yes
11/29/2017	0.02	Analog	Primary	C4C3D7	UXO QA 1	Yes
1/17/2018	0.18	Analog	Primary	C4C3E0	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3E1	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3E2	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3E3	UXO QA 1	Yes
11/29/2017	0.18	Analog	Primary	C4C3E4	UXO QA 1	Yes
11/29/2017	0.1	Analog	Primary	C4C3E5	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
11/29/2017	0.02	Analog	Primary	C4C3E6	UXO QA 1	Yes
1/17/2018	<0.01	Analog	Primary	C4C3E8	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4C3E9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3F0	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3F1	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3F2	UXO QA 1	Yes
11/29/2017	0.08	Analog	Primary	C4C3F3	UXO QA 1	Yes
11/29/2017	<0.01	Analog	Primary	C4C3F4	UXO QA 1	Yes
1/17/2018	0.03	Analog	Primary	C4C3F5	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4C3F6	UXO QA 1	Yes
1/17/2018	0.16	Analog	Primary	C4C3F7	UXO QA 1	Yes
1/17/2018	0.22	Analog	Primary	C4C3F8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3F9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3G0	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3G1	UXO QA 1	Yes
11/29/2017	0.23	Analog	Primary	C4C3G2	UXO QA 1	Yes
11/29/2017	0.06	Analog	Primary	C4C3G3	UXO QA 1	Yes
1/17/2018	0.02	Analog	Primary	C4C3G5	UXO QA 1	Yes
1/17/2018	0.13	Analog	Primary	C4C3G6	UXO QA 1	Yes
1/17/2018	0.22	Analog	Primary	C4C3G7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3G8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3G9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3H0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3H1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3H2	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3H3	UXO QA 1	Yes
12/5/2017	0.12	Analog	Primary	C4C3H4	UXO QA 1	Yes
12/5/2017	<0.01	Analog	Primary	C4C3H5	UXO QA 1	Yes
1/17/2018	0.02	Analog	Primary	C4C3H7	UXO QA 1	Yes
1/17/2018	0.19	Analog	Primary	C4C3H8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C3H9	UXO QA 1	Yes
1/17/2018	0.21	Analog	Primary	C4C3I0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3I1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3I2	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3I3	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3I4	UXO QA 1	Yes
12/5/2017	0.17	Analog	Primary	C4C3I5	UXO QA 1	Yes
12/5/2017	0.11	Analog	Primary	C4C3I6	UXO QA 1	Yes
12/5/2017	0.02	Analog	Primary	C4C3I7	UXO QA 1	Yes
1/17/2018	<0.01	Analog	Primary	C4C3I8	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4C3I9	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
1/17/2018	0.22	Analog	Primary	C4C3J0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J2	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J3	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J4	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J5	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4C3J6	UXO QA 1	Yes
12/5/2017	0.14	Analog	Primary	C4C3J7	UXO QA 1	Yes
1/17/2018	0.04	Analog	Primary	C4C3J9	UXO QA 1	Yes
1/17/2018	0.01	Analog	Primary	C4C4E1	UXO QA 1	Yes
1/17/2018	0.18	Analog	Primary	C4C4F1	UXO QA 1	Yes
1/17/2018	0.02	Analog	Primary	C4C4F2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4G1	UXO QA 1	Yes
1/17/2018	0.21	Analog	Primary	C4C4G2	UXO QA 1	Yes
1/17/2018	0.05	Analog	Primary	C4C4G3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4H1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4H2	UXO QA 1	Yes
1/17/2018	0.22	Analog	Primary	C4C4H3	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4C4H4	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4I1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4I2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4I3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4I4	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4C4I5	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4J1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4J2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4J3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4C4J4	UXO QA 1	Yes
1/17/2018	0.22	Analog	Primary	C4C4J5	UXO QA 1	Yes
1/17/2018	0.02	Analog	Primary	C4C4J6	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2A0	UXO QA 1	Yes
11/16/2017	0.06	Analog	Primary	C4D2A3	UXO QA 1	Yes
11/16/2017	0.02	Analog	Primary	C4D2A4	UXO QA 1	Yes
11/16/2017	0.01	Analog	Primary	C4D2A6	UXO QA 1	Yes
11/16/2017	0.19	Analog	Primary	C4D2A7	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2A8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2A9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2B0	UXO QA 1	Yes
11/16/2017	<0.01	Analog	Primary	C4D2B2	UXO QA 1	Yes
11/16/2017	0.2	Analog	Primary	C4D2B3	UXO QA 1	Yes
11/16/2017	0.22	Analog	Primary	C4D2B4	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
11/16/2017	0.2	Analog	Primary	C4D2B5	UXO QA 1	Yes
11/16/2017	0.2	Analog	Primary	C4D2B6	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2B7	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2B8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2B9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C0	UXO QA 1	Yes
11/16/2017	0.04	Analog	Primary	C4D2C2	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C3	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C4	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C5	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C6	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C7	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2C9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D0	UXO QA 1	Yes
11/16/2017	0.06	Analog	Primary	C4D2D2	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D3	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D4	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D5	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D6	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D7	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2D9	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E0	UXO QA 1	Yes
11/16/2017	0.01	Analog	Primary	C4D2E2	UXO QA 1	Yes
11/16/2017	0.15	Analog	Primary	C4D2E3	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E4	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E5	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E6	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E7	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E8	UXO QA 1	Yes
11/16/2017	0.23	Analog	Primary	C4D2E9	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2F0	UXO QA 1	Yes
11/22/2017	0.04	Analog	Primary	C4D2F4	UXO QA 1	Yes
11/22/2017	0.15	Analog	Primary	C4D2F5	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2F6	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2F7	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2F8	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2F9	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2G0	UXO QA 1	Yes
11/22/2017	0.04	Analog	Primary	C4D2G6	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
11/22/2017	0.14	Analog	Primary	C4D2G7	UXO QA 1	Yes
11/22/2017	0.19	Analog	Primary	C4D2G8	UXO QA 1	Yes
11/22/2017	0.23	Analog	Primary	C4D2G9	UXO QA 1	Yes
11/22/2017	0.19	Analog	Primary	C4D2H0	UXO QA 1	Yes
11/22/2017	0.02	Analog	Primary	C4D2H9	UXO QA 1	Yes
11/22/2017	0.06	Analog	Primary	C4D2I0	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3A0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3A1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3A2	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3A3	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3A4	UXO QA 1	Yes
12/5/2017	0.13	Analog	Primary	C4D3A5	UXO QA 1	Yes
12/5/2017	0.05	Analog	Primary	C4D3A6	UXO QA 1	Yes
12/5/2017	<0.01	Analog	Primary	C4D3A7	UXO QA 1	Yes
1/17/2018	0.08	Analog	Primary	C4D3A8	UXO QA 1	Yes
1/17/2018	0.21	Analog	Primary	C4D3A9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3B0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3B1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3B2	UXO QA 1	Yes
12/5/2017	0.21	Analog	Primary	C4D3B3	UXO QA 1	Yes
12/5/2017	0.07	Analog	Primary	C4D3B4	UXO QA 1	Yes
12/13/2017	<0.01	Analog	Primary	C4D3B5	UXO QA 1	Yes
12/13/2017	0.08	Analog	Primary	C4D3B6	UXO QA 1	Yes
1/17/2018	0.19	Analog	Primary	C4D3B7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3B8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3B9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3C0	UXO QA 1	Yes
12/5/2017	0.15	Analog	Primary	C4D3C1	UXO QA 1	Yes
12/5/2017	0.07	Analog	Primary	C4D3C2	UXO QA 1	Yes
12/5/2017	0.01	Analog	Primary	C4D3C3	UXO QA 1	Yes
12/13/2017	0.01	Analog	Primary	C4D3C4	UXO QA 1	Yes
12/13/2017	0.12	Analog	Primary	C4D3C5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3C6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3C7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3C8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3C9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3D0	UXO QA 1	Yes
12/5/2017	0.11	Analog	Primary	C4D3D1	UXO QA 1	Yes
12/13/2017	0.14	Analog	Primary	C4D3D4	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3D5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3D6	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
1/17/2018	0.23	Analog	Primary	C4D3D7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3D8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3D9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3E0	UXO QA 1	Yes
12/5/2017	0.19	Analog	Primary	C4D3E1	UXO QA 1	Yes
12/5/2017	0.09	Analog	Primary	C4D3E2	UXO QA 1	Yes
12/13/2017	0.11	Analog	Primary	C4D3E4	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3E5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3E6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3E7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3E8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3E9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3F0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3F1	UXO QA 1	Yes
12/5/2017	0.2	Analog	Primary	C4D3F2	UXO QA 1	Yes
12/13/2017	0.09	Analog	Primary	C4D3F4	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3F5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3F6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3F7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3F8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3F9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3G0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3G1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3G2	UXO QA 1	Yes
12/5/2017	0.01	Analog	Primary	C4D3G3	UXO QA 1	Yes
12/13/2017	0.06	Analog	Primary	C4D3G4	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3G5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3G6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3G7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3G8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3G9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3H0	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3H1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3H2	UXO QA 1	Yes
12/5/2017	0.06	Analog	Primary	C4D3H3	UXO QA 1	Yes
12/13/2017	0.03	Analog	Primary	C4D3H4	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3H5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3H6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3H7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3H8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3H9	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
1/17/2018	0.23	Analog	Primary	C4D3I0	UXO QA 1	Yes
12/5/2017	0.22	Analog	Primary	C4D3I1	UXO QA 1	Yes
12/5/2017	0.23	Analog	Primary	C4D3I2	UXO QA 1	Yes
12/5/2017	0.12	Analog	Primary	C4D3I3	UXO QA 1	Yes
12/13/2017	<0.01	Analog	Primary	C4D3I4	UXO QA 1	Yes
12/13/2017	0.22	Analog	Primary	C4D3I5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3I6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3I7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3I8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3I9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3J0	UXO QA 1	Yes
12/5/2017	0.02	Analog	Primary	C4D3J1	UXO QA 1	Yes
12/5/2017	0.14	Analog	Primary	C4D3J2	UXO QA 1	Yes
12/5/2017	0.17	Analog	Primary	C4D3J3	UXO QA 1	Yes
12/13/2017	0.19	Analog	Primary	C4D3J5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D3J6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3J7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3J8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D3J9	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4A1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4A2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4A3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4A4	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4A5	UXO QA 1	Yes
1/17/2018	0.08	Analog	Primary	C4D4A6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4B1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4B2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4B3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4B4	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4B5	UXO QA 1	Yes
1/17/2018	0.06	Analog	Primary	C4D4B6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C4	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C5	UXO QA 1	Yes
1/17/2018	0.03	Analog	Primary	C4D4C6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D4	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
1/17/2018	0.22	Analog	Primary	C4D4D5	UXO QA 1	Yes
1/17/2018	<0.01	Analog	Primary	C4D4D6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E4	UXO QA 1	Yes
1/17/2018	0.19	Analog	Primary	C4D4E5	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F4	UXO QA 1	Yes
1/17/2018	0.15	Analog	Primary	C4D4F5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G4	UXO QA 1	Yes
12/13/2017	0.14	Analog	Primary	C4D4G5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H4	UXO QA 1	Yes
12/13/2017	0.17	Analog	Primary	C4D4H5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I4	UXO QA 1	Yes
12/13/2017	0.22	Analog	Primary	C4D4I5	UXO QA 1	Yes
12/13/2017	0.01	Analog	Primary	C4D4I6	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J1	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J2	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J3	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J4	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J5	UXO QA 1	Yes
11/28/2017	0.08	Analog	Primary	C4D4J6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A0	UXO QA 1	Yes
12/5/2017	0.02	Analog	Primary	C4E3A3	UXO QA 1	Yes
12/13/2017	<0.01	Analog	Primary	C4E3A4	UXO QA 1	Yes
12/13/2017	0.17	Analog	Primary	C4E3A5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4E3A6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A8	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
1/17/2018	0.23	Analog	Primary	C4D4C3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C4	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4C5	UXO QA 1	Yes
1/17/2018	0.03	Analog	Primary	C4D4C6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4D4	UXO QA 1	Yes
1/17/2018	0.22	Analog	Primary	C4D4D5	UXO QA 1	Yes
1/17/2018	<0.01	Analog	Primary	C4D4D6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4E4	UXO QA 1	Yes
1/17/2018	0.19	Analog	Primary	C4D4E5	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F1	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F2	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F3	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4D4F4	UXO QA 1	Yes
1/17/2018	0.15	Analog	Primary	C4D4F5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4G4	UXO QA 1	Yes
12/13/2017	0.14	Analog	Primary	C4D4G5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4H4	UXO QA 1	Yes
12/13/2017	0.17	Analog	Primary	C4D4H5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I1	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I2	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I3	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4D4I4	UXO QA 1	Yes
12/13/2017	0.22	Analog	Primary	C4D4I5	UXO QA 1	Yes
12/13/2017	0.01	Analog	Primary	C4D4I6	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J1	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J2	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J3	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4D4J4	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
11/28/2017	0.23	Analog	Primary	C4D4J5	UXO QA 1	Yes
11/28/2017	0.08	Analog	Primary	C4D4J6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A0	UXO QA 1	Yes
12/5/2017	0.02	Analog	Primary	C4E3A3	UXO QA 1	Yes
12/13/2017	<0.01	Analog	Primary	C4E3A4	UXO QA 1	Yes
12/13/2017	0.17	Analog	Primary	C4E3A5	UXO QA 1	Yes
12/13/2017	0.23	Analog	Primary	C4E3A6	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A7	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A8	UXO QA 1	Yes
1/17/2018	0.23	Analog	Primary	C4E3A9	UXO QA 1	Yes
1/17/2018	0.07	Analog	Primary	C4E3B0	UXO QA 1	Yes
12/13/2017	0.01	Analog	Primary	C4E3B5	UXO QA 1	Yes
12/13/2017	0.01	Analog	Primary	C4E3B6	UXO QA 1	Yes
1/17/2018	0.09	Analog	Primary	C4E3B7	UXO QA 1	Yes
1/17/2018	0.11	Analog	Primary	C4E3B8	UXO QA 1	Yes
1/17/2018	0.08	Analog	Primary	C4E3B9	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4E4A1	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4E4A2	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4E4A3	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4E4A4	UXO QA 1	Yes
11/28/2017	0.23	Analog	Primary	C4E4A5	UXO QA 1	Yes
11/28/2017	0.17	Analog	Primary	C4E4A6	UXO QA 1	Yes
11/28/2017	0.05	Analog	Primary	C4E4B1	UXO QA 1	Yes
11/28/2017	0.04	Analog	Primary	C4E4B2	UXO QA 1	Yes
11/28/2017	0.05	Analog	Primary	C4E4B3	UXO QA 1	Yes
11/28/2017	0.03	Analog	Primary	C4E4B4	UXO QA 1	Yes
11/28/2017	0.01	Analog	Primary	C4E4B5	UXO QA 1	Yes
11/28/2017	0.07	Analog	Primary	C4E4B6	UXO QA 1	Yes
11/28/2017	0.02	Analog	Primary	C4E4B7	UXO QA 1	Yes
11/28/2017	<0.01	Analog	Primary	C4E4C7	UXO QA 1	Yes
2/14/2019	0.02	Analog	Trail Buffer	C4C3C7	UXO QA 1	Yes
2/14/2019	<0.01	Analog	Trail Buffer	C4C3C8	UXO QA 1	Yes
2/14/2019	0.04	Analog	Trail Buffer	C4C3D0	UXO QA 1	Yes
2/14/2019	0.01	Analog	Trail Buffer	C4C3D6	UXO QA 1	Yes
2/14/2019	0.22	Analog	Trail Buffer	C4C3D7	UXO QA 1	Yes
2/14/2019	0.22	Analog	Trail Buffer	C4C3D8	UXO QA 1	Yes
2/14/2019	0.13	Analog	Trail Buffer	C4C3D9	UXO QA 1	Yes
2/14/2019	0.03	Analog	Trail Buffer	C4C3E0	UXO QA 1	Yes
2/14/2019	0.06	Analog	Trail Buffer	C4C3E4	UXO QA 1	Yes
2/14/2019	0.14	Analog	Trail Buffer	C4C3E5	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
2/14/2019	0.21	Analog	Trail Buffer	C4C3E6	UXO QA 1	Yes
2/14/2019	0.23	Analog	Trail Buffer	C4C3E7	UXO QA 1	Yes
2/14/2019	0.23	Analog	Trail Buffer	C4C3E8	UXO QA 1	Yes
2/14/2019	0.15	Analog	Trail Buffer	C4C3E9	UXO QA 1	Yes
2/14/2019	0.17	Analog	Trail Buffer	C4C3F3	UXO QA 1	Yes
2/14/2019	0.23	Analog	Trail Buffer	C4C3F4	UXO QA 1	Yes
2/14/2019	0.21	Analog	Trail Buffer	C4C3F5	UXO QA 1	Yes
2/14/2019	0.14	Analog	Trail Buffer	C4C3F6	UXO QA 1	Yes
2/14/2019	0.08	Analog	Trail Buffer	C4C3F7	UXO QA 1	Yes
2/14/2019	0.02	Analog	Trail Buffer	C4C3F8	UXO QA 1	Yes
2/14/2019	0.18	Analog	Trail Buffer	C4C3G3	UXO QA 1	Yes
2/14/2019	0.23	Analog	Trail Buffer	C4C3G4	UXO QA 1	Yes
2/14/2019	0.21	Analog	Trail Buffer	C4C3G5	UXO QA 1	Yes
2/14/2019	0.11	Analog	Trail Buffer	C4C3G6	UXO QA 1	Yes
2/14/2019	0.02	Analog	Trail Buffer	C4C3G7	UXO QA 1	Yes
2/21/2019	<0.01	Analog	Trail Buffer	C4C3H3	UXO QA 1	Yes
2/21/2019	0.12	Analog	Trail Buffer	C4C3H4	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4C3H5	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4C3H6	UXO QA 1	Yes
2/21/2019	0.21	Analog	Trail Buffer	C4C3H7	UXO QA 1	Yes
2/21/2019	0.05	Analog	Trail Buffer	C4C3H8	UXO QA 1	Yes
2/21/2019	0.02	Analog	Trail Buffer	C4C3I0	UXO QA 1	Yes
2/21/2019	0.07	Analog	Trail Buffer	C4C3I5	UXO QA 1	Yes
2/21/2019	0.14	Analog	Trail Buffer	C4C3I6	UXO QA 1	Yes
2/21/2019	0.22	Analog	Trail Buffer	C4C3I7	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4C3I8	UXO QA 1	Yes
2/21/2019	0.16	Analog	Trail Buffer	C4C3I9	UXO QA 1	Yes
2/21/2019	0.01	Analog	Trail Buffer	C4C3J0	UXO QA 1	Yes
2/21/2019	<0.01	Analog	Trail Buffer	C4C3J6	UXO QA 1	Yes
2/21/2019	0.12	Analog	Trail Buffer	C4C3J7	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4C3J8	UXO QA 1	Yes
2/21/2019	0.20	Analog	Trail Buffer	C4C3J9	UXO QA 1	Yes
2/21/2019	<0.01	Analog	Trail Buffer	C4D3A4	UXO QA 1	Yes
2/21/2019	0.11	Analog	Trail Buffer	C4D3A5	UXO QA 1	Yes
2/21/2019	0.19	Analog	Trail Buffer	C4D3A6	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4D3A7	UXO QA 1	Yes
2/21/2019	0.15	Analog	Trail Buffer	C4D3A8	UXO QA 1	Yes
2/21/2019	0.02	Analog	Trail Buffer	C4D3A9	UXO QA 1	Yes
2/21/2019	0.03	Analog	Trail Buffer	C4D3B3	UXO QA 1	Yes
2/21/2019	0.17	Analog	Trail Buffer	C4D3B4	UXO QA 1	Yes

Date Analog Surface Op QA Complete	Acreage	Survey Type	Area	Grid ID	Analog Surface Op QA Team	Complete
2/21/2019	0.23	Analog	Trail Buffer	C4D3B5	UXO QA 1	Yes
2/21/2019	0.16	Analog	Trail Buffer	C4D3B6	UXO QA 1	Yes
2/21/2019	0.05	Analog	Trail Buffer	C4D3B7	UXO QA 1	Yes
2/21/2019	0.09	Analog	Trail Buffer	C4D3C1	UXO QA 1	Yes
2/21/2019	0.18	Analog	Trail Buffer	C4D3C2	UXO QA 1	Yes
2/21/2019	0.22	Analog	Trail Buffer	C4D3C3	UXO QA 1	Yes
2/21/2019	0.22	Analog	Trail Buffer	C4D3C4	UXO QA 1	Yes
2/21/2019	0.11	Analog	Trail Buffer	C4D3C5	UXO QA 1	Yes
2/21/2019	0.13	Analog	Trail Buffer	C4D3D1	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4D3D2	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4D3D3	UXO QA 1	Yes
2/21/2019	0.10	Analog	Trail Buffer	C4D3D4	UXO QA 1	Yes
2/21/2019	0.04	Analog	Trail Buffer	C4D3E1	UXO QA 1	Yes
2/21/2019	0.15	Analog	Trail Buffer	C4D3E2	UXO QA 1	Yes
2/21/2019	0.23	Analog	Trail Buffer	C4D3E3	UXO QA 1	Yes
2/21/2019	0.12	Analog	Trail Buffer	C4D3E4	UXO QA 1	Yes
2/20/2019	0.04	Analog	Trail Buffer	C4D3F2	UXO QA 1	Yes
2/20/2019	0.23	Analog	Trail Buffer	C4D3F3	UXO QA 1	Yes
2/20/2019	0.15	Analog	Trail Buffer	C4D3F4	UXO QA 1	Yes
2/20/2019	<0.01	Analog	Trail Buffer	C4D3G2	UXO QA 1	Yes
2/20/2019	0.22	Analog	Trail Buffer	C4D3G3	UXO QA 1	Yes
2/20/2019	0.18	Analog	Trail Buffer	C4D3G4	UXO QA 1	Yes
2/20/2019	0.19	Analog	Trail Buffer	C4D3H3	UXO QA 1	Yes
2/20/2019	0.21	Analog	Trail Buffer	C4D3H4	UXO QA 1	Yes
2/20/2019	0.11	Analog	Trail Buffer	C4D3I3	UXO QA 1	Yes
2/20/2019	0.23	Analog	Trail Buffer	C4D3I4	UXO QA 1	Yes
2/20/2019	0.01	Analog	Trail Buffer	C4D3I5	UXO QA 1	Yes
2/20/2019	0.06	Analog	Trail Buffer	C4D3J3	UXO QA 1	Yes
2/20/2019	0.23	Analog	Trail Buffer	C4D3J4	UXO QA 1	Yes
2/20/2019	0.06	Analog	Trail Buffer	C4D3J5	UXO QA 1	Yes
2/20/2019	0.02	Analog	Trail Buffer	C4E3A3	UXO QA 1	Yes
2/20/2019	0.16	Analog	Trail Buffer	C4E3A4	UXO QA 1	Yes
2/20/2019	0.07	Analog	Trail Buffer	C4E3A5	UXO QA 1	Yes

Appendix D

Munitions Assessment Review Board Reports

DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL MATERIALS ACTIVITY
E4585 HOADLEY ROAD
ABERDEEN PROVING GROUND, MD 21010-5424

AMSCM-D

JAN 3 , 2018

MEMORANDUM FOR Department of the Army, Base Realignment and Closure (BRAC) Office (Mr. William Collins), Fort Ord, P.O. Box 5008, Monterey, CA 93944-5008

SUBJECT: Materiel Assessment Review Board (MARB) Recommendations for Fort Ord (ORD), CA, Items ORD-17-017

1. The MARB met on 18 December 2017 to evaluate non-intrusive assessment data collected on one item recovered at Fort Ord, CA. The U.S. Army Chemical, Biological, Radiological, Nuclear and High Yield Explosives Analytical Remediation Activity assessed the item with x-ray and the Portable Isotopic Neutron Spectroscopy (PINS) Chemical Assay System.

2. Item ORD-17-017, a 4.2 inch mortar, was determined to contain a 40% liquid fill, a partial fuze and energetic materials. Analysis of the PINS spectra revealed this item contains an FM Smoke fill, high confidence, and was subsequently recommended for local disposition by the MARB.

5. The MARB conference notes are enclosed, and the MARB Materiel Assessment Data Sheets (MADS) are in Attachment C of the enclosure. Item-specific data, including x-ray analysis, explosive configuration, and fill are provided in the MADS. Please carefully review the MADS prior to disposal.

6. For more information and to report destruction of the items please call [redacted] U.S. Army 20th Support Command, [redacted]

Encl

James F. Reckard III

JAMES F. RECKARD III
COL, CM
Director

AMSCM-D JAN 3 , 2018
SUBJECT: Materiel Assessment Review Board (MARB) Recommendations for Fort Ord (ORD), CA, Items ORD-17-017

CF: (w/encls)
Dr. Ed Seabury, Idaho National Laboratory, P.O. Box 1625, Idaho Falls, ID 83415-3855
Commander, U.S. Army Research, Development and Engineering Command (AMSRD-OPH/ Mr. Smart), 5183 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424
Commander, U.S. Army CBRNE 20th Command, (AFCB-DCO/COL Muchow), 5183 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Edgewood Chemical Biological Center (AMSRD-ECB-CB-C/ Mr. Blades), 5183 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-RM/Mr. Lyle), E4585 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-TR/Mr. Hertzog), E4585 Hoadley Road, Building E4588, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-MOM/Mr. Dolan), E4585 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424

DEPARTMENT OF THE ARMY
U.S. ARMY CHEMICAL MATERIALS ACTIVITY
8435 HOADLEY ROAD
ABERDEEN PROVING GROUND, MD 21010-5424

AMSCM-D

JAN 24 2019

MEMORANDUM FOR Department of the Army, Fort Ord Base Realignment and Closure (BRAC) Office (Mr. William Collins), P.O. Box 5008, Monterey, CA 93944-5008

SUBJECT: Materiel Assessment Review Board (MARB) Recommendations for Fort Ord (ORD), CA, Items ORD-18-018 thru ORD-18-021

1. The MARB met on 14 December 2018 to evaluate non-intrusive assessment data collected on four items recovered at ORD. The MARB co-chairs were Mr. Robert Maddox, U.S. Army 20th Chemical, Biological, Radiological, Nuclear and High Yield Explosives (CBRNE) Command and Mr. Russell Fendick, U.S. Army Chemical Materials Activity (CMA) Recovered Chemical Materiel Directorate (RCMD). The U.S. Army CBRNE Analytical Remediation Activity assessed the items with x-ray and the portable isotopic neutron spectroscopy (PINS) chemical assay system.

2. Item ORD-18-018, a 4.2 inch mortar, was determined to contain a 95% liquid fill, fuze remnants and energetic materials. Strong chlorine and titanium peaks were observed. The PINS fill assessment is FM smoke and the item was subsequently recommended for local disposition (LD) by the MARB.

3. Item ORD-18-019, a 4.2 inch mortar, was determined to contain a 95% liquid fill, fuze remnants and energetic materials. Strong chlorine and titanium peaks were observed. The PINS fill assessment is FM smoke and the item was subsequently recommended for LD by the MARB.

4. Item ORD-18-020, a 4.2 inch mortar, was determined to be empty, fuzed and did not contain energetic materials. Weak chlorine and sulfur peaks were observed. The PINS fill assessment is FS smoke residue and it was subsequently recommended for LD by the MARB.

5. Item ORD-18-021, a 4.2 inch mortar, was determined to contain a 95% liquid fill, fuze remnants and energetic materials. Moderate chlorine and strong sulfur peaks were observed. The PINS fill assessment is FS smoke and it was subsequently recommended for LD by the MARB.

6. The MARB conference notes are enclosed and the MARB Materiel Assessment Data Sheets (MADS) are in Attachment C of the enclosure. Item-specific data, including x-ray analysis, explosive configuration and fill are provided in the MADS. Please carefully review the MADS prior to disposal.

AMSCM-D JAN 24 2019
SUBJECT: Materiel Assessment Review Board (MARB) Recommendations for Fort Ord (ORD), CA, Items ORD-18-018 thru ORD-18-021

7. For more information and to report destruction of the items please call [redacted] U.S. Army 20th CBRNE Command [redacted]

Encl

KELSO C. HORNE III
COL, CM
Director

CF: (w/encl)
Dr. Edward Seabury, Idaho National Laboratory, P.O. Box 1625, Idaho Falls, ID 83415-2212
Commander, U.S. Army Research, Development and Engineering Command (AMSRD-OPH/Mr. Smart), 8193 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424
Commander, U.S. Army CBRNE 20th Command, (AFCB-DCO/COL Muchow), 9088 21st Street, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Edgewood Chemical Biological Center (AMSRD-ECB-CB-C/ Mr. Blades), 8193 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-RM/Mr. Lyle), 8435 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-TR/Mr. Hertzog), 8435 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424
Director, U.S. Army Chemical Materials Activity (AMSCM-MOM/Mr. Webb), 8435 Hoadley Road, Aberdeen Proving Ground, MD 21010-5424

Appendix E

Risk Reduction Results

Risk Reduction - Digital Geophysical Mapping Selected Targets Results

Area	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Trail Buffer	C4C3D0	C4C3D0-0001	5758432.38	2124381.16	5/8/2019	12	RRD/OD
Trail Buffer	C4C3D0	C4C3D0-0002	5758438.38	2124379.86	5/8/2019	0	Same Anomaly
Trail Buffer	C4C3D0	C4C3D0-0003	5758441.93	2124386.33	5/8/2019	0	RRD/OD
Trail Buffer	C4C3D0	C4C3D0-0004	5758436.26	2124376.76	5/8/2019	0	RRD/OD
Trail Buffer	C4C3E0	C4C3E0-0001	5758437.5	2124412.5	5/8/2019	0	RRD/OD
Trail Buffer	C4C3E0	C4C3E0-0002	5758454.02	2124403.54	5/8/2019	0	RRD/OD
Trail Buffer	C4C3E0	C4C3E0-0003	5758452.65	2124401.17	5/8/2019	0	Same Anomaly
Trail Buffer	C4C3E7	C4C3E7-0001	5758196.25	2124475.63	5/6/2019	12	MD (rocket, 2.36inch, HEAT, M6)
Trail Buffer	C4C3E7	C4C3E7-0002	5758193.13	2124475.31	5/8/2019	24	Same Anomaly
Trail Buffer	C4C3E7	C4C3E7-0003	5758194.69	2124472.19	5/8/2019	24	MD
Trail Buffer	C4C3E7	C4C3E7-0004	5758186.71	2124488.02	5/8/2019	18	RRD/OD
Trail Buffer	C4C3E7	C4C3E7-0005	5758199.64	2124472.25	5/8/2019	24	Same Anomaly
Trail Buffer	C4C3E8	C4C3E8-0001	5758200.31	2124475.31	5/8/2019	24	Same Anomaly
Trail Buffer	C4C3E8	C4C3E8-0002	5758261.56	2124450.63	5/7/2019	6	QC Seed
Trail Buffer	C4C3E8	C4C3E8-0003	5758266.68	2124483.87	5/7/2019	4	MD
Trail Buffer	C4C3E8	C4C3E8-0004	5758204.23	2124481.4	5/8/2019	24	Same Anomaly
Trail Buffer	C4D3D3	C4D3D3-0001	5757764.38	2125319.38	4/23/2019	5	RRD/OD
Trail Buffer	C4C3F3	C4C3F3-0001	5757775.63	2124544.06	4/23/2019	4	MD
Trail Buffer	C4C3F4	C4C3F4-0001	5757895.63	2124504.06	4/23/2019	4	MD
Trail Buffer	C4C3F5	C4C3F5-0001	5757945.94	2124557.19	4/23/2019	3	MD
Trail Buffer	C4C3F5	C4C3F5-0002	5757918.31	2124588.43	4/22/2019	6	MD
Trail Buffer	C4C3F6	C4C3F6-0001	5758057.5	2124538.44	4/22/2019	6	Same Anomaly
Trail Buffer	C4C3F6	C4C3F6-0002	5758054.38	2124540	4/22/2019	12	RRD/OD
Trail Buffer	C4C3F7	C4C3F7-0001	5758112.5	2124525.63	4/22/2019	3	MD
Trail Buffer	C4C3F8	C4C3F8-0001	5758239.81	2124507.13	4/24/2019	6	QC Seed
Trail Buffer	C4C3G4	C4C3G4-0001	5757868.13	2124629.69	4/25/2019	3	QC Seed
Trail Buffer	C4C3I7	C4C3I7-0001	5758143.44	2124847.81	4/25/2019	3	MD
Trail Buffer	C4C3J7	C4C3J7-0001	5758162.36	2124995.92	4/25/2019	4	MD
Trail Buffer	C4C3J7	C4C3J7-0002	5758167.87	2124995.19	4/29/2019	0	RRD/OD
Trail Buffer	C4D3A5	C4D3A5-0001	5757924.06	2125073.75	4/29/2019	6	QC Seed
Trail Buffer	C4D3A6	C4D3A6-0001	5758071.92	2125070.37	4/29/2019	4	MD
Trail Buffer	C4D3B5	C4D3B5-0001	5757901.56	2125182.19	4/29/2019	0	RRD/OD

Area	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Trail Buffer	C4D3C1	C4D3C1-0001	5757548.13	2125253.13	4/29/2019	2	MD
Trail Buffer	C4D3C4	C4D3C4-0001	5757899.06	2125202.19	4/29/2019	6	MD
Trail Buffer	C4D3C5	C4D3C5-0001	5757935.94	2125235	4/29/2019	8	MD
Trail Buffer	C4D3C5	C4D3C5-0002	5757947.5	2125240.63	4/29/2019	1	MD
Trail Buffer	C4D3D1	C4D3D1-7001	5757578.13	2125314.06	5/1/2019	6	QC Seed
Trail Buffer	C4D3E2	C4D3E2-0001	5757695.31	2125494.06	4/30/2019	2	OD
Trail Buffer	C4D3F3	C4D3F3-0001	5757755	2125514.69	4/30/2019	6	QC Seed
Trail Buffer	C4D3G3	C4D3G3-0001	5757750.63	2125632.19	4/30/2019	1	MD
Trail Buffer	C4D3G3	C4D3G3-0002	5757781.56	2125669.06	4/30/2019	4	QC Seed
Trail Buffer	C4D3G3	C4D3G3-0003	5757759.69	2125700	4/30/2019	0	Same Anomaly
Trail Buffer	C4D3G3	C4D3G3-0004	5757773.13	2125693.13	4/30/2019	1	MD
Trail Buffer	C4D3G3	C4D3G3-0005	5757762.19	2125628.44	4/30/2019	1	MD
Trail Buffer	C4D3H3	C4D3H3-0001	5757760	2125701.56	4/30/2019	4	MD
Trail Buffer	C4D3I3	C4D3I3-0001	5757777.81	2125804.38	4/30/2019	24	False Positive
Trail Buffer	C4D3I4	C4D3I4-0001	5757843.75	2125858.44	4/30/2019	6	QC Seed
Trail Buffer	C4D3J3	C4D3J3-0001	5757799.38	2125985.94	5/1/2019	6	Same Anomaly
Trail Buffer	C4D3J4	C4D3J4-0001	5757801.13	2125982.01	5/1/2019	24	RRD/OD
Trail Buffer	C4D3J4	C4D3J4-0002	5757803.13	2125984.69	5/1/2019	24	Same Anomaly
Trail Buffer	C4E3A4	C4E3A4-0001	5757819.06	2126018.44	5/1/2019	6	RRD/OD
Trail Buffer	C4E3A4	C4E3A4-0002	5757841.25	2126018.01	5/1/2019	6	QC Seed
Trail Buffer	C4E3A4	C4E3A4-0003	5757817.5	2126020	5/1/2019	6	Same Anomaly
Trail Buffer	C4E3A4	C4E3A4-0004	5757883.44	2126031.25	5/1/2019	2	RRD/OD

Risk Reduction - AGC Selected Target Results

Area	Target Selection	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Primary	MetalMapper Cued DigEx	C4C2G0	C4C2G0_1236	5757445.13	2124659.18	10/1/2018	8	QC Seed
Primary	MetalMapper Cued DigEx	C4C2H0	C4C2H0_1156	5757404.69	2124707.81	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C2H9	C4C2H9_1315	5757379.37	2124710.31	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3C1	C4C3C1_1044	5757573.12	2124290.62	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3D1	C4C3D1_1476	5757513.88	2124341.66	10/1/2018	10	QC Seed
Primary	MetalMapper Cued DigEx	C4C3D5	C4C3D5_1710	5757987.82	2124369.92	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3G1	C4C3G1_1721	5757572.94	2124656.57	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3H1	C4C3H1_1481	5757572.9	2124719.2	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3H2	C4C3H2_1416	5757653	2124732.19	10/1/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4C3I3	C4C3I3_1550	5757748.79	2124852.29	10/2/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4D2B8	C4D2B8_1229	5757236.61	2125137.68	10/2/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4D2C6	C4D2C6_1203	5757056.95	2125236.02	10/2/2018	7	QC Seed
Primary	MetalMapper Cued DigEx	C4D2E4	C4D2E4_1313	5756871.62	2125444.86	10/2/2018	8	QC Seed
Primary	MetalMapper Cued DigEx	C4D2E9	C4D2E9_1345	5757343.71	2125436.84	10/2/2018	5	QC Seed
Primary	MetalMapper Cued DigEx	C4D3A2	C4D3A2_1574	5757645.76	2125058.11	10/2/2018	8	QC Seed
Primary	MetalMapper Cued DigEx	C4D3G1	C4D3G1_1379	5757550.52	2125617.79	10/2/2018	9	QC Seed
Primary	MetalMapper Cued DigEx	C4D3H6	C4D3H6_1272	5758064.8	2125736.89	10/3/2018	4	QC Seed
Primary	MetalMapper Cued DigEx	C4D3I8	C4D3I8_1517	5758220	2125871.56	10/3/2018	4	MD
Primary	MetalMapper Cued DigEx	C4D3J5	C4D3J5_1170	5757963.4	2125934.1	10/3/2018	7	QC Seed

Area	Target Selection	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Primary	MetalMapper Cued DigEx	C4D3J8	C4D3J8_1190	5758233.68	2125982.78	10/3/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4E3A6	C4E3A6_1596	5758007.81	2126081.56	10/3/2018	4	RRD/OD
Primary	MetalMapper Cued DigEx	C4E3A9	C4E3A9_1518	5758364.69	2126000.31	10/3/2018	12	RRD/OD
Primary	MetalMapper Cued DigEx	C4E3B0	C4E3B0_1282	5758480.44	2126101.72	10/3/2018	15	RRD/OD
Primary	MetalMapper Cued DigEx	C4E3B6	C4E3B6_1110	5758070.94	2126102.19	10/3/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D4J1	C4D4J1_1335	5758540.18	2125928	10/4/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4D4J2	C4D4J2_1487	5758623.94	2125933.83	10/4/2018	12	RRD/OD
Primary	MetalMapper Cued DigEx	C4D4J2	C4D4J2_1522	5758618.84	2125937.99	10/4/2018	3	RRD/OD
Primary	MetalMapper Cued DigEx	C4D4J2	C4D4J2_1568	5758636.43	2125919.89	10/4/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D4J2	C4D4J2_1572	5758632.16	2125926.25	10/4/2018	8	RRD/OD
Primary	MetalMapper Cued DigEx	C4D4J2	C4D4J2_1649	5758692.46	2125921.75	10/4/2018	2	RRD/OD
Primary	MetalMapper Cued DigEx	C4D4J3	C4D4J3_1126	5758765	2125935.91	10/4/2018	18	RRD/OD
Primary	MetalMapper Cued DigEx	C4E4A2	C4E4A2_1092	5758615.7	2126045.52	10/4/2018	18	RRD/OD
Primary	MetalMapper Cued DigEx	C4E4A2	C4E4A2_1525	5758695	2126091.87	10/4/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4E4A3	C4E4A3_1084	5758758.75	2126016.25	10/4/2018	2	MD
Primary	MetalMapper Cued DigEx	C4E4B6	C4E4B6_1048	5759016.62	2126109.69	10/4/2018	18	RRD/OD
Primary	MetalMapper Cued DigEx	C4E4B7	C4E4B7_1413	5759110.31	2126174.37	10/4/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D3F0	C4D3F0_1543	5758434.69	2125542.81	10/9/2018	8	MD
Primary	MetalMapper Cued DigEx	C4D3G9	C4D3G9_1013	5758390.71	2125614.62	10/9/2018	6	Same Anomaly

Area	Target Selection	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Primary	MetalMapper Cued DigEx	C4D3G9	C4D3G9_1106	5758390.58	2125614.45	10/9/2018	6	RRD/OD
Primary	MetalMapper Cued DigEx	C4D3G9	C4D3G9_1461	5758367.02	2125609.51	10/9/2018	6	MD
Primary	MetalMapper Cued DigEx	C4D4F2	C4D4F2_1590	5758650.03	2125504.41	10/9/2018	2	MD
Primary	MetalMapper Cued DigEx	C4D4F2	C4D4F2_1646	5758616.45	2125509.29	10/9/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D4F2	C4D4F2_1739	5758680.36	2125507.13	10/9/2018	4	MD
Primary	MetalMapper Cued DigEx	C4D4G2	C4D4G2_1638	5758678.75	2125618.44	10/9/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D4G3	C4D4G3_1108	5758746.29	2125647.64	10/9/2018	14	MD
Primary	MetalMapper Cued DigEx	C4D4H3	C4D4H3_1305	5758778.09	2125747.53	10/9/2018	4	QC Seed
Primary	MetalMapper Cued DigEx	C4D3D0	C4D3D0_1569	5758455.94	2125346.03	10/10/2018	8	RRD/OD
Primary	MetalMapper Cued DigEx	C4D3D0	C4D3D0_1675	5758453.08	2125340.91	10/10/2018	4	RRD/OD
Primary	MetalMapper Cued DigEx	C4D3D0	C4D3D0_1696	5758464.53	2125346.86	10/10/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D3D0	C4D3D0_1704	5758458.96	2125358.23	10/10/2018	10	RRD/OD
Primary	MetalMapper Cued DigEx	C4D3E9	C4D3E9_1265	5758399.11	2125440.63	10/10/2018	12	MD
Primary	MetalMapper Cued DigEx	C4D4D2	C4D4D2_1511	5758672.16	2125347.77	10/10/2018	8	MD
Primary	MetalMapper Cued DigEx	C4D4E1	C4D4E1_1632	5758550.7	2125454.34	10/10/2018	18	False Positive
Primary	MetalMapper Cued DigEx	C4D4E4	C4D4E4_1347	5758823.9	2125448.68	10/10/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4C4J1	C4C4J1_1028	5758526.2	2124918.67	10/11/2018	8	UXO (projectile, 4.2inch, screening, smoke, FS, M2 series)
Primary	MetalMapper Cued DigEx	C4D3A0	C4D3A0_1091	5758401.96	2125032.89	10/11/2018	16	UXO (projectile, 4.2inch, screening, smoke, FS, M2 series)
Primary	MetalMapper Cued DigEx	C4D3C6	C4D3C6_1173	5758054.49	2125293.02	10/11/2018	9	MD

Area	Target Selection	Grid ID	Unique Target ID	Easting SP	Northing SP	Dig Date	Depth (inches)	Result
Primary	MetalMapper Cued DigEx	C4D3C9	C4D3C9_1278	5758323	2125273	10/11/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4D3E7	C4D3E7_1456	5758169	2125439	10/11/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4D4B1	C4D4B1_1144	5758504.52	2125108.37	10/11/2018	10	MD
Primary	MetalMapper Cued DigEx	C4D4B2	C4D4B2_1296	5758624	2125119	10/11/2018	6	QC Seed
Primary	MetalMapper Cued DigEx	C4C3E0	C4C3E0_1004	5758407.47	2124435.72	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3E0	C4C3E0_1107	5758406.35	2124444.75	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3E9	C4C3E9_1002	5758395.57	2124443.26	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3E9	C4C3E9_1014	5758397.52	2124435.54	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3F9	C4C3F9_1008	5758388.45	2124533.2	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3F9	C4C3F9_1052	5758393.2	2124530.48	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C3F9	C4C3F9_1090	5758397.25	2124526.97	10/15/2018	18	Unknown (not investigated past 18 inches)
Primary	MetalMapper Cued DigEx	C4C4J4	C4C4J4_1145	5758838.52	2124929.37	10/15/2018	6	QC Seed

Appendix F

Unit B-2A MEC Items Recovered

Date Found	Item Number	Item Type	Qty	Description	Depth (inches)	Operation	Area
11/8/2017	C4D2F8-1-1	DMM	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
11/21/2017	C4D4J2-1-1	UXO	1	Grenade, hand, fragmentation, MK II	0	Surface Removal	Primary
11/22/2017	C4D4I2-1-1	UXO	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
11/22/2017	C4D4I2-1-2	UXO	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
11/28/2017	C4D3J2-1-1	UXO	1	Signal, illumination, ground, parachute, M17 series	0	Surface Removal	Primary
12/7/2017	C4D3I6-1-1	UXO	1	Grenade, hand, riot, CS, M7A3	0	Surface Removal	Primary
12/11/2017	C4D4C2-1-1	UXO	1	Projectile, 4.2inch, screening, smoke, FS, M2 series	0	Surface Removal	Primary
12/21/2017	C4D3J8-1-1	UXO	1	Grenade, rifle, smoke, M22 series	0	Surface Removal	Primary
1/3/2018	C4D4A1-1-1	UXO	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
1/3/2018	C4D4A1-1-2	DMM	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
1/8/2018	C4D3H0-1-1	UXO	1	Projectile, 37mm, low explosive, MK I	0	Surface Removal	Primary
1/9/2018	C4C4I1-1-1	DMM	1	Fuze, grenade, hand, practice, M228	0	Surface Removal	Primary
1/10/2018	C4C4H2-1-1	UXO	1	Flare, surface, trip, M49 series	0	Surface Removal	Primary
1/10/2018	C4D3E0-1-1	UXO	1	Signal, illumination, ground, M131	0	Surface Removal	Primary
10/11/2018	C4C4J1_1028	UXO	1	Projectile, 4.2inch, screening, smoke, FS, M2 series	8	Risk Reduction (MetalMapper Cued DigEx)	Primary
10/11/2018	C4D3A0_1091	UXO	1	Projectile, 4.2inch, screening, smoke, FS, M2 series	16	Risk Reduction (MetalMapper Cued DigEx)	Primary
2/5/2019	C4C3F7-1-1	UXO	1	Flare, surface, trip, M49 series	0	Surface Removal	Trail Buffer
2/6/2019	C4C3E7-1-1	UXO	1	Signal, illumination, ground, M127 series	0	Surface Removal	Trail Buffer
2/12/2019	C4D3D1-1-1	UXO	1	Projectile, 37mm, low explosive, MK I	0	Surface Removal	Trail Buffer
4/23/2019	C4C3F3-G-1	UXO	1	flare, surface, trip, M49 series	4	Risk Reduction (Gap)	Trail Buffer
5/15/2019	C4D4J1-G-1-1	UXO	1	signal, illumination, ground, white star cluster, M18A1	6	Risk Reduction (Gap)	Primary
5/16/2019	C4D3I0-G-1	UXO	1	flare, surface, trip, M49 series	2	Risk Reduction (Gap)	Primary
5/20/2019	C4D2E4-G-1	UXO	1	signal, illumination, ground, white star cluster, M18A1	6	Risk Reduction (Gap)	Primary
5/21/2019	C4D3G7-G-1-1	UXO	1	flare, surface, trip, M49 series	8	Risk Reduction (Gap)	Primary
5/21/2019	C4D3G7-G-1-2	UXO	1	signal, illumination, ground, parachute, M17 series	8	Risk Reduction (Gap)	Primary
5/21/2019	C4D4G1-G-1-1	UXO	1	signal, illumination, ground, white star cluster, M18A1	6	Risk Reduction (Gap)	Primary
Total number of MEC items recovered: 26							

Appendix G

Field Work Variance 020

KEMRON Gilbane

Field Work Variance No. 020

FIELD WORK VARIANCE

Project Name/Number	Fort Ord	**WP**	17
Applicable Document	Final, Site-Specific Work Plan, Munitions and Explosives of Concern Remedial Action, BLM Area B, Former Fort Ord, California (KEMRON, 2017) (OE-0900B)	**Date**	August 30, 2018

Background: A munitions and explosives of concern (MEC) surface removal was conducted in Bureau of Land Management (BLM) Area B Unit B-2A at the former Fort Ord, CA from September 2017 through March 2018 (with the exception of a trail buffer). During the surface removal in Unit B-2A, one 4.2-inch smoke projectile was encountered and removed from the ground surface. Although this item was subsequently confirmed to contain FS smoke, these items have the potential to be used for delivery of chemical warfare agent. Since the filler of these items cannot be confirmed visually, they are generally classified as munitions with unknown fillers. Both Department of Defense and U.S. Army Corps of Engineers (USACE) guidance specify that only Explosive Ordnance Disposal (EOD) or Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) response personnel can determine the most likely filler of these munitions. In accordance with standard operating procedures, active duty EOD personnel were contacted to determine the filler of this item. The location of this item described above resulted in a stoppage of munitions response work until a response was completed by EOD and CBRNE personnel.

Following completion of surface MEC removal within Unit B-2A, digital geophysical mapping (DGM) was performed to document the presence of subsurface anomalies.

Based on the discovery of the projectile and munitions debris (MD) removed from its vicinity, a potential exists for 4.2-inch smoke projectiles to remain in the shallow subsurface in this area. Any additional such items are likely to contain smoke fill. A concern was identified that the potential presence of unknown filler items in the shallow subsurface could result in an item functioning during a fire, and any future encounter would necessitate time-consuming procedures that could impact the planned long-term reuse of the property by BLM. Similar to procedures adopted for a similar circumstance in Unit 3 in the Impact Area Munitions Response Area (FWV-005 [OE-0882]), the Army will conduct removal of subsurface anomalies in Unit B-2A that could represent these unknown filler items at shallow depths. Based on the specific munitions type (4.2-inch projectile) and its potential to be affected by a fire, and input from USACE Ordnance and Explosives Safety Specialist (OESS), the intrusive investigation will be to 18 inches below ground surface.

Problem Description: A potential exists for an unknown filler item to be functioned during a fire, or to be encountered which would necessitate time-consuming procedures that could impact the planned long-term reuse of the property by BLM. Conduct of a limited subsurface removal in Unit B-2A will address the uncertainty that an unknown filler item in this area could be encountered in the future. Based on the expected millivolt (mV) response of a 4.2-inch mortar projectile at a maximum depth of 24 inches (200 mV), there are a total of 749 subsurface anomalies recommended for investigation and possible removal shown on Figure 1.

Recommended solution:

Conduct an investigation of the 749 anomalies using MetalMapper 2x2 to determine which anomalies potentially represent 4.2-inch mortar projectiles. Conduct a limited subsurface removal that addresses the anomalies shown on Figure 1 that potentially represent 4.2-inch mortar projectiles in the shallow subsurface. Follow field procedures outlined below.

Notice to EOD Prior to Commencement of Intrusive Activities: Prior to the commencement of intrusive activities, Vandenberg (or other active duty) EOD unit will be notified by the USACE OESS.

Intrusive Investigation: All reacquired anomalies will be investigated to a depth of 18 inches. If a depth of 18 inches is reached and no item is encountered, excavation will be stopped and the excavation will be backfilled. If an intrusively investigated item is determined to be 4.2-inch mortar projectile, the location of the item will be recorded with an RTK-GPS or RTS. The item will be covered with plastic sheeting, plywood and sand bag(s),

and the existing hole will be backfilled. All items determined to be a 4.2-inch mortar projectile will be handled in this manner. Following completion of all anomaly excavations, active duty EOD personnel, if not already on site, will be contacted to determine the filler of these items during one site visit.

Other material potentially presenting an explosive hazard (MPPEH) items encountered during intrusive activities will be handled in accordance with standard procedures.

Impact on present and completed work:

No impact on current or completed work.

Recommended solution/disposition:

Incorporate this FWV as an appendix to the existing Final Work Plan.

Clarification ☐ Minor Change ☐ Major Change ☒

Affects Budget Yes ☒ No ☐
Affects Schedule Yes ☒ No ☐

Signature Kevin J. Siemann (Digitally signed by Kevin J. Siemann DN: C=US, E=ksiemann@gilbaneco.com, O=Gilbane Company, OU=Gilbane Company, CN=Kevin J. Siemann Date: 2018.08.30 21:38:05-07'00') Date ______
Task Manager

Signature Bradley Olson (Digitally signed by Bradley Olson Date: 2018.09.05 12:49:54 -07'00') Date ______
SUXOS

Signature Steve Crane Date 8/31/18
Project Manager

Signature cclyde@gilbaneco.com (Digitally signed by cclyde@gilbaneco.com DN: cn=cclyde@gilbaneco.com Date: 2018.09.04 07:56:20 -07'00') Date ______
CQCSM

Signature Erin K. Caruso (Digitally signed by Erin K. Caruso) Date ______
Deputy Project Manager

Signature Bruce McClain (Digitally signed by Bruce McClain Date: 2018.09.05 13:30:53 -07'00') Date ______
UXOQCS

USACE Approval: If Major Change:

Signature BRITT.JAMES.CLIFTON.1056168920 (Digitally signed by BRITT.JAMES.CLIFTON.1056168920 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=BRITT.JAMES.CLIFTON.1056168920 Date: 2018.09.13 11:55:26 -07'00') Date ______
OE Safety Specialist

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USACE Project Geophysicist

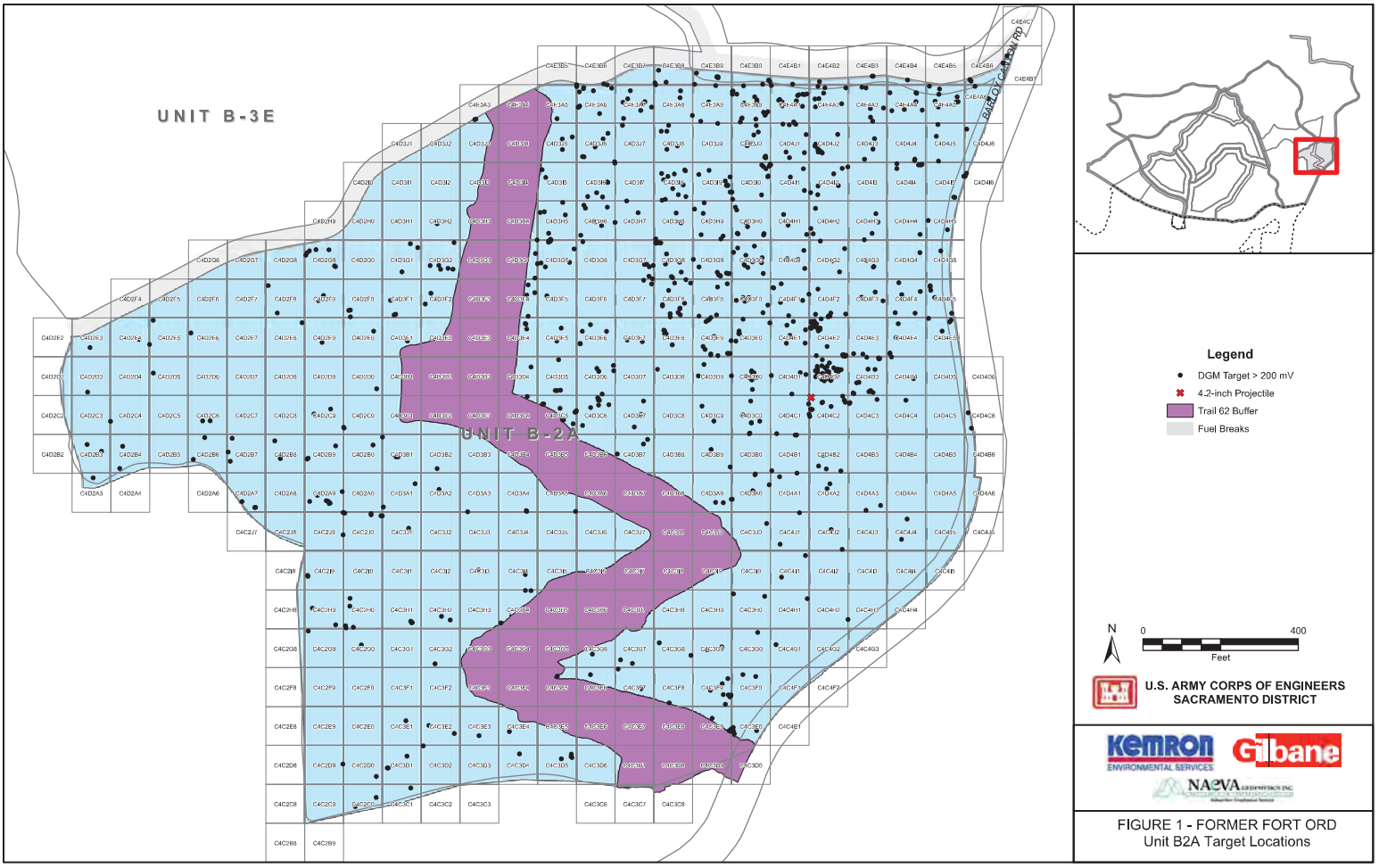

FIGURE 1 - FORMER FORT ORD
Unit B2A Target Locations

Document Path: Q:\Virginia Office\Kemron\Fort Ord\Data_EM61_Array\GIS\MXDs_Not_Currently_In_Use\B2A_200mV_Targets.mxd

Distribution List: FWV 020, Final Site-Specific Work Plan Munitions and Explosives of Concern Remedial Action BLM Area B Former Fort Ord, California

CD/Email	Paper	Name	Organization	Address	City, State	Zip
1		Mr. Duane Balch	Department of the Army USACE	1325 J Street	Sacramento, CA	95814
1		Mr. Kyle Lindsay	Department of the Army USACE	1325 J Street	Sacramento, CA	95814
1		Mr. James Britt	Department of the Army USACE	4463 Gigling Road	Seaside, CA	93955
1		Mr. Curtis Payton	Department of the Army USACE	4463 Gigling Road	Seaside, CA	93955
1		Mr. William Collins	Department of the Army, Fort Ord BRAC	4463 Gigling Road	Seaside, CA	93955
1		Ms. Natalie Gordon	Chenega Corporation	4463 Gigling Road	Seaside, CA	93955
1		Ms. Chieko Nozaki	Chenega Corporation	4463 Gigling Road	Seaside, CA	93955
1		Ms. Betsy Hibbits	Chenega Corporation	4463 Gigling Road	Seaside, CA	93955
1		Mr. Tom Ghigliotto	Chenega Corporation	4463 Gigling Road	Seaside, CA	93955
1	1	Mr. Eric Morgan	Bureau of Land Management, Fort Ord National Monument	940 2nd Avenue	Marina, CA	93933
1		Mr. Robert Young	Tech Law, Inc.	235 Montgomery Street, Suite 717	San Francisco, CA	94104
1		Mr. Tom Hall	Tech Law, Inc.	7 Shore Point Road	North Little Rock, AR	72116
1	1	Mr. Vlado Arsov	California Department of Toxic Substances Control (DTSC)	8800 California Center Drive	Sacramento, CA	95826
1	1	Ms. Maeve Clancy	U.S. Environmental Protection Agency, Region IX	75 Hawthorne Street, Mail SFD-8-3	San Francisco, CA	94105
	1	Mr. David Frisbey	Monterey Bay Air Resources District	24580 Silver Cloud Court	Monterey, CA	93940
1		Mr. Dartanion Mims	California Air Resources Board	1001 I Street	Sacramento, CA	95814
	1	Mr. Mike Weaver	Fort Ord Community Advisory Group (FOCAG)	52 Corral De Tierra Road	Salinas, CA	93908
1		Mr. Steve Crane	KEMRON Environmental Services	4522 Joe Lloyd Way	Monterey, CA	93944
1	1	Ms. Audrey Johnson	KEMRON Environmental Services	4522 Joe Lloyd Way	Monterey, CA	93944
1		Ms. LeVonne Stone	Fort Ord Environmental Justice Network (FOEJN)	P.O. Box 361	Marina, CA	93933
2	2	Admin Record	Fort Ord BRAC	4463 Gigling Road	Seaside, CA	93955

Approved: PAYTON.R.CURTIS.II.1231979707

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DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=PAYTON.R.CURTIS.II.1231979707
Date: 2018.09.27 15:36:16 -07'00'

R. Curtis Payton, II, PG
Project Manager
U.S. Army Corps of Engineers

Appendix H

USACE DGM QA
Approval and Discussion

FORMER FORT ORD, CALIFORNIA
UNIT B-2A
QUALITY ASSURANCE REPORT:
DIGITAL GEOPHYSICAL OPERATIONS

PREPARED BY
GEOLOGY SECTION
SACRAMENTO DISTRICT
U.S. ARMY CORPS OF ENGINEERS

PREPARED FOR
FORT ORD BASE REALIGNMENT AND CLOSURE (BRAC) OFFICE

AUGUST 2019

1.0 INTRODUCTION

This report covers the Quality Assurance (QA) processes conducted by the U.S. Army Corps of Engineers (USACE) with respect to the collection, processing, and evaluation of digital geophysical data by KEMRON Environmental Services, Inc (KEMRON). The field work was performed in Unit B-2A. Work was performed under WERS contract No. W912DY-10-D-0027, Site-Specific Work Plan (SSWP), BLM Area B (KEMRON, 2017). The field protocols, database management, and QA reviews were based on a combination of methods previously used in other units and described in the UFP-QAPP Volume II Appendix A (KEMRON, 2016a), along with additional procedures necessary for ensuring compliance with the WERS MMRP contract and the standard operating procedures performed by KEMRON's subcontractors GILBANE and NAEVA. USACE QA verified that KEMRON had an adequate Quality Control (QC) program in place and that data collected in Unit B-2A were in accordance with project Data Quality Objectives (DQOs) and Measurement Quality Objectives (MQOs), as established in the UFP-QAPP (KEMRON, 2016a) and the AGCMR-QAPP (KEMRON 2016b) with modification by FWV 012 (KEMRON, 2018a). Unit B-2A included areas recommended for subsurface removal and DGM data were collected in their entirety to meet modified Category A data.

1.1 Site details

Unit B-2A is located on the eastern edge of BLM Area B, as depicted in Figure 1. Unit B-2A is bounded by Barloy Canyon Road on the east and East Machine Gun Flats Road to the north. BLM trails 61 and 62 run north-south through the center of Unit B-2A. Unit B-2A encompasses a total of approximately 72 acres. Due to the presence of large, mature trees, steep terrain, and a previously unidentified vernal pond (Pond 74) in Unit B-2A, approximately 8 acres were inaccessible to DGM operations.

Clean-up operations pertinent to DGM activities were initiated with a vegetation clearance followed by an instrument-aided surface removal. The Remedial Action of Unit B-2A was conducted in a phased approach to continually assess the possibility of maintaining the vegetation buffer around trails 61 and 62. During vegetation clearance and surface clearance, a total of 17 MEC items were removed. A 4.2-inch screening smoke mortar projectile was recovered during surface clearance operations. Based on the potential for 4.2-inch mortars with unknown filler to remain in the shallow subsurface, Field Work Variance (FWV) 020 (KEMRON, 2018) was prepared and a risk reduction was conducted in Unit B-2A. Risk reduction activities in the primary area of Unit B-2A consisted of investigation of 749 anomalies utilizing AGC. A continuation of the risk reduction was conducted in the Unit B-2A trail buffer which consisted of intrusive investigation of anomalies selected from EM-61 data.

According to the Installation-Wide Multispecies Habitat Management Plan (HMP) for Fort Ord (USACE 1997), the site will be used as an undeveloped habitat reserve. BLM Area B is mostly covered by maritime chaparral and grassland habitats. The terrain in BLM Area B is

dominated by rolling hills with elevations ranging from 720-900 ft. above sea level (ASL). These hills are composed of sand associated with Pleistocene aged sand dunes that may be as thick as 250 ft.

2.0 QA ACTIVITES

2.1 Data Collection Methods

Production geophysical data were collected using Geonics EM-61MKII electromagnetic sensors in a multi-coil configuration (towed array) throughout most of the site. Additional person-portable DGM data were collected where the towed array could not access due to terrain issues. The EM-61MKII is a time-domain electromagnetic sensor that generates an electromagnetic pulse, inducing eddy currents within the subsurface. During the off period of the EM pulse, the eddy current decay produces secondary electromagnetic fields within both ferrous and non-ferrous metallic objects. These secondary electromagnetic fields are received and recorded over four averaged time gates per data collection interval (10Hz).

Data were collected either as individual grids or in grid blocks of variable size consisting of multiple grids. All data collected met the modified Category A line spacing requirements, with 95% not to exceed a lane spacing of 2 ft. and 99.5% not to exceed a lane spacing of 3 ft. As stated in the MEC Procedures Supplement, the purpose and objective for the Category A DGM surveys is to obtain high quality DGM data in order to pick targets for subsurface removal. The modified Category A lane spacing requirement of 99.5% not to exceed 3 ft. is sufficient to achieve the intent of Category A lane spacing and prevents the unnecessary collection of small data gaps that have no impact on target selection. The BLM Area B SSWP requires DGM data to be collected to Category B standards. Unit B-2A DGM data were collected to the modified Category A standards in support of a risk reduction to remove 4.2-inch mortars with unknown filler from the shallow subsurface.

Obstacles and issues with terrain precluded 100% coverage and approximately 8 acres of Unit B-2A were either inaccessible due to the presence of large trees or determined by UXO Safety to be inaccessible to DGM survey due to steep terrain. All data gaps were appropriately documented in the obstacle files submitted with DGM packages. Figure 2 of this QA report depicts the full DGM dataset for Unit B-2A.

A total of 749 targets meeting the selection threshold of 200 mV on SUM channel (4.2-inch mortar at 2 ft.) were selected from the dynamic EM61 DGM survey for cued measurement within the Unit B-2A primary area (Figure 3) with the MetalMapper 2x2 (MM2x2). Classification data from each measured anomaly was processed, modeled, and classified to determine if the item was safe to leave in place or was a potential TOI to be intrusively investigated and removed. Each anomaly was ranked according to its likelihood of being a TOI: Category 0 – Cannot Analyze, Category 1 – High-Confidence TOI, Category 2 – Inconclusive, and Category 3 – High-Confidence Non-TOI.

Following mastication, technology-aided surface removal, and DGM survey of the trail 60 and 61 buffer areas, an additional 54 targets meeting the 185 mV threshold were selected for intrusive investigation.

A modified DGM QC/QA process was implemented to address these targets, the details of which are document in FWV 020 (KEMRON, 2018b). The goal of the investigation was to remove only large anomaly sources that could be associated with 4.2-inch mortars. Therefore, following the removal of the anomalous source, dig teams were only required to resolve targets to below 50 mV on Channel 2 (the equivalent of 200 mV on SUM channel). A percentage of dig locations were then checked by the QC Geophysicist with an EM61 to verify that anomalies had been resolved below 50 mV. Additionally, the USACE QA Geophysicist and OESS checked approximately 10% of the anomalies to validate that anomalies had been successfully resolved to below the 50 mV threshold. All 54 targets within the trail buffer passed QA inspection and Table 4 presents the results of the QA validation survey.

Risk reduction activities were also conducted within the DGM data gaps using an EM61 in analog mode. The geophysical team made the determination that data gaps larger than 36 square feet (the equivalent width of approximately two EM61 coils) maintain the potential to contain a 4.2-inch mortar. Following the same modified QC/QA approach as the targets identified in the trail buffers, teams intrusively investigated only anomalies that were greater than 50 mV on channel 2 in the gap areas. Following intrusive investigation, a percentage of each gap was investigated by the UXO-QC with an EM61 in analog mode. Additionally, a percentage of gaps were investigated by the USACE QA Geophysicist and OESS with an EM61 in analog mode. No anomalies greater than 50 mV on channel 2 were identified during QA activities and all DGM data gaps passed QA inspection.

2.2 Field Oversight

Field oversight was performed intermittently throughout the project by both the USACE Project Geophysicist and the OESS. Appropriate field procedures were reviewed and found to be in compliance. Under the WERS Contract No. W912DY-10-D-0027, NAEVA is subcontracted to collect the geophysical data.

2.3 Geophysical System Verification

Under the WERS contract, USACE and KEMRON fully incorporated the physics based Geophysical System Verification (GSV) approach as described in the July 2009 ESTCP report (ESTCP, 2009) and supported by EM 200-1-15. GSV includes two methods for providing QA/QC: blind seeding and the instrument verification strip (IVS). IVS data results were recorded on daily QC submittals attached as PDF files to the grid blocks. Data were reviewed by the QA Geophysicist to ensure all MQOs were achieved. The QA data review process is described in section 2.4 and a summary of MQOs for towed array DGM operations and MM2x2 AGC cued measurements are given in Tables 1 and 2, respectively.

Daily IVS data results for towed-array and person-portable DGM data in Unit B-2A are shown in Figures 4-7. Daily IVS test results for MM2x2 AGC cued measurements are shown in Figures 8-9. Further details regarding MQOs are provided in the UFP-QAPP (KEMRON, 2016a), AGCMR-QAPP (KEMRON, 2016b), and FWV 012 (KEMRON, 2018a).

Production data required the GSV blind seeds placed throughout Unit B-2A, as documented in the UFP-QAPP. By placing blind seeds at an average rate of one per day, the instrument functionality can be tested on a daily basis. Any failures to detect a blind seed could be indicative of an issue with data collection. All blind seeds were small industry standard objects buried at six inches below ground surface. The blind seeds were placed by the QC Geophysicist. All blind QC seeds were detected and both the responses and positioning were within the requirements of the MQOs and SOPs. Table 3 summarizes the QC seed results for Unit B-2A.

2.4 Digital Data Review

A review of digital geophysics data by the USACE was performed to monitor the effectiveness of data processing and consistency of data delivery. Issues that were reviewed in these data included:

1) Missing survey lines within a grid (interline gaps)
2) Point-to-point data gaps along survey lines
3) Bowing out of survey lines beyond 50% of survey line spacing, unless otherwise collected
4) Unreasonable data “spikes”
5) Data incongruity across survey grids (Data levels in one grid are not reasonably compatible with data levels in neighboring grids)
6) Inadequate data density along survey traverse
7) Lack of accurate, precise locations; survey line orientation
8) Inadequate/incomplete site survey coverage
9) Missing, incomplete, or noncompliant instrument standardization checks
10) Completeness of file header information and supporting documentation
11) Consistent IVS and GSV results supporting the data quality objectives

To accomplish this, all raw and processed data files were checked by the USACE to ensure that KEMRON followed an appropriate and informative naming convention reflecting the grids surveyed as outlined in the EM 200-1-15. The USACE checked that KEMRON managed the field and processed data in a professional manner, including organization, daily maintenance, and complete documentation. This focused on a review of header files on the pre-processed data (data that has been merged into a single file and synchronized with the GPS data) and processed data to verify that dates were consistent, systems and system sampling parameters were identified, project name and contractor was listed, and all column headers were included and defined. KEMRON also delivered supporting summary sheets that further documented field parameters and processing. All of the summary sheets

were reviewed for completeness, verification of calibration data, and consistency to the electronic data file headers.

In order to make the above process more efficient, a grid tracking spreadsheet located in the Unit B-2A folder on the FTP site was updated weekly and allowed for the QC Geophysicist and USACE QA Geophysicist to document their verification of each deliverable. Minor issues such as corrupt or incomplete zip files were addressed within the table, major issues were addressed as corrective action requests. The final excel file will be maintained within the Final Data Submittal QC folder on the Fort Ord server.

The procedure for reprocessing and projecting the pseudo-color maps of the DGM data included starting with a 100% review of the data in Geosoft Oasis Montaj to include re-leveling and re-gridding. These digital data were imported into Geosoft for the generation of pseudo-color maps that were then exported as a georeferenced geotif.

Overall, the general QA digital data review consisted at a minimum of:

1) Creating a processed database
2) Importing XYZ data
3) Calculation of sum channel
4) Generating a grid (0.25 ft. cell size and blanking distance of 2 ft.) of sum channel
5) Plotting the sum channel
6) Plotting a symbol cover for the track lines (view coverage)
7) Exporting the plots to geotifs
8) Importing the geotifs into a GIS

2.5 Discussion

No corrective action requests were issued for data collected in Unit B-2A, however one minor MQO failure is worth discussion. Multiple IVS seed items exhibited a response above the established MQO (outside coils only) during the morning and afternoon IVS surveys on 02/08/18 and 02/12/18. The QC Geophysicist noted the response in the QC reports and attributed it to the towed array trailer being hitched to the bulldozer lower than normal, and the elevated responses were identified as isolated with no effect on the data quality. The USACE QA geophysicist reviewed the daily QC and production data and confirmed that this was an isolated response. All other IVS item responses and offsets, QC tests, and blind QC seed MQOs were met for that data deliverable, confirming there was no impact on the usability of the DGM data. No corrective action was issued.

3.0 CONCLUSIONS

QA activities by the Government verified KEMRON had an adequate QC program in place and that data collected within Unit B-2A are sufficient and in accordance with the project DQOs and MQOs. Furthermore, all data in Unit B-2A meet modified Category A standards

and anomalies identified as TOI were removed to reduce the risk of 4.2-inch mortars with unknown filler being present to a depth of two feet below ground surface.

4.0 REFERENCES

ESTCP, 2009. *Geophysical System Verification (GSV): A Physics-Based Alternative to Geophysical Prove-Outs for Munitions Response.* July.

KEMRON, 2016a. *Final, Quality Assurance Project Plan, Former Fort Ord, California, Volume II, Appendix A, Munitions and Explosives of Concern Remedial Action.* December. (OE-0884A)

KEMRON, 2016b. *Final Quality Assurance Project Plan Superfund Response Actions, Former Fort Ord, California, Volume II, Appendix B, Advanced Geophysical Classification for Munitions Response Quality Assurance Project Plan.* August. (OE-868b)

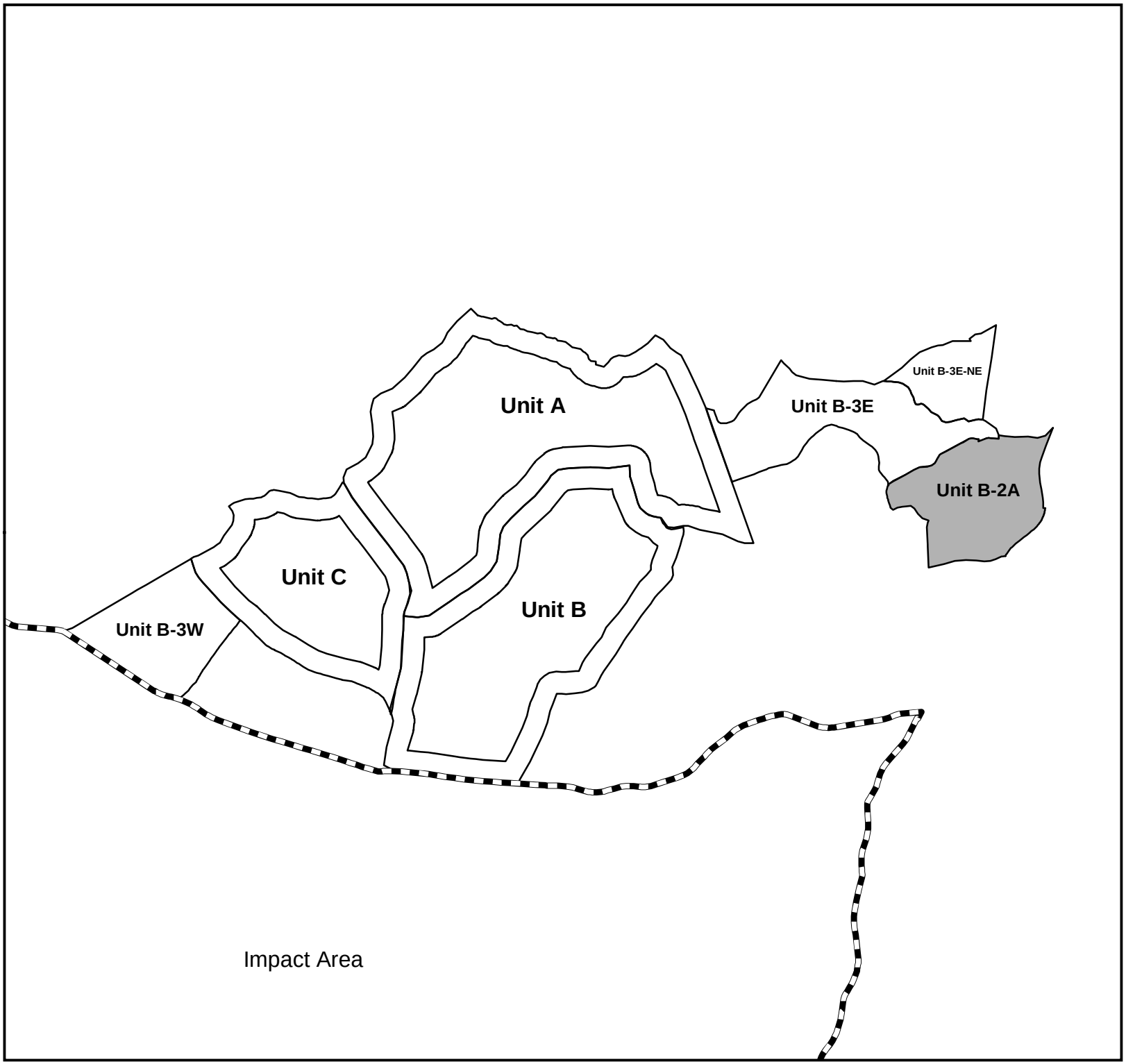
KEMRON, 2017. *Final, Site-Specific Work Plan, Munitions and Explosives of Concern Remedial Action, BLM Area B, Former Fort Ord, California.* December. (OE-0900B)

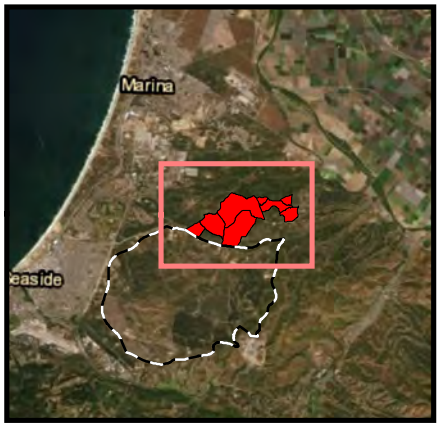
KEMRON, 2018a. *Field Word Variance 012* to the *Final Quality Assurance Project Plan Superfund Response Actions, Former Fort Ord, California, Volume II, Appendix B, Advanced Geophysical Classification for Munitions Response Quality Assurance Project Plan.* January. (OE-0888B.2)

KEMRON, 2018b. *Field Word Variance 020* to the *Final, Site-Specific Work Plan, Munitions and Explosives of Concern Remedial Action, BLM Area B, Former Fort Ord, California.* August. (OE-0900B.2)

USACE, 1997. *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California (HMP).* April. With technical assistance from Jones and Stokes, Sacramento, California. (BW-1787)

5.0 FIGURES





Legend

- Impact Area boundary
- Unit_B-2A

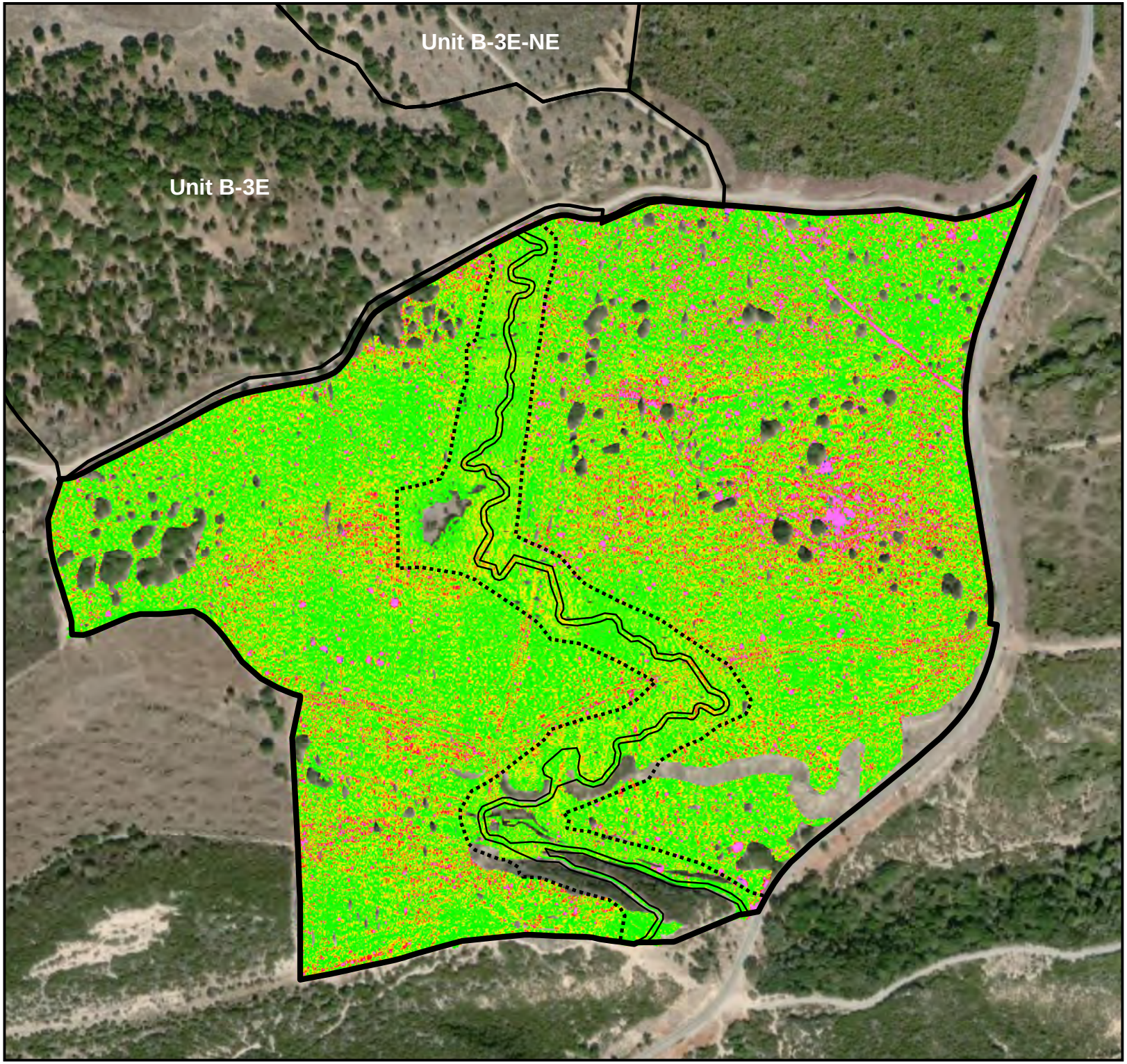
N

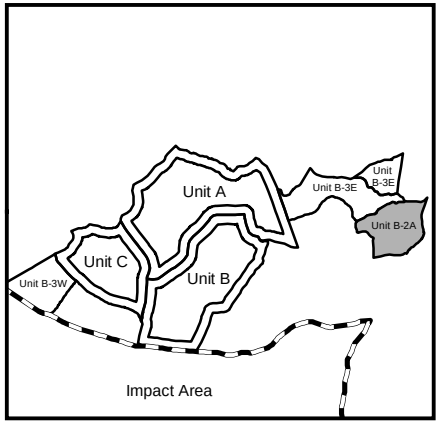
0 Feet 2,000

U.S. Army Corps of Engineers
Sacramento District

Figure 1

BLM Area B Remedial Work Areas
Former Fort Ord, CA





Legend

Unit_B-2A_Trail_Buffer

Trails_61_62

19.2
18.5
17.7
16.9
16.2
15.4
14.6
13.8
13.1
12.3
11.5
10.8
10.0
9.2
8.5
7.7
6.9
6.2
5.4
4.6
3.8
3.1
2.3
1.5
0.8
0.0
-0.8
-1.5
-2.3
-3.1
-3.8
-4.6
-5.4
-6.2
-6.9
-7.7
-8.5
-9.2

mV
CH Sum

N

Feet

0 150 300 450 600

U.S. Army Corps of Engineers
Sacramento District

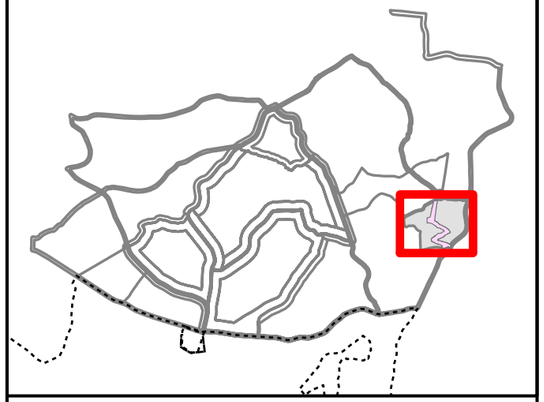
Figure 2

Unit B-2A DGM data
Former Fort Ord, CA

UNIT B-3E

UNIT B-2A

BARLOY CANYON RD



Legend

- DGM Target > 200 mV
- 4.2-inch Projectile Trail
- 62 Buffer
- Fuel Breaks

N

0 400

Feet

U.S. ARMY CORPS OF ENGINEERS
SACRAMENTO DISTRICT

KEMRON ENVIRONMENTAL SERVICES

Gilbane

NAEVA GEOPHYSICS INC.
Subsurface Geophysical Surveys

FIGURE 3 - Unit B2A
Target Locations

Document Path: Q:\Virginia Office\Kemron\Fort Ord\Data_EM61_Array\GIS\MXDs_Not_Currently_In_Use\B2A_200mV_Targets.mxd

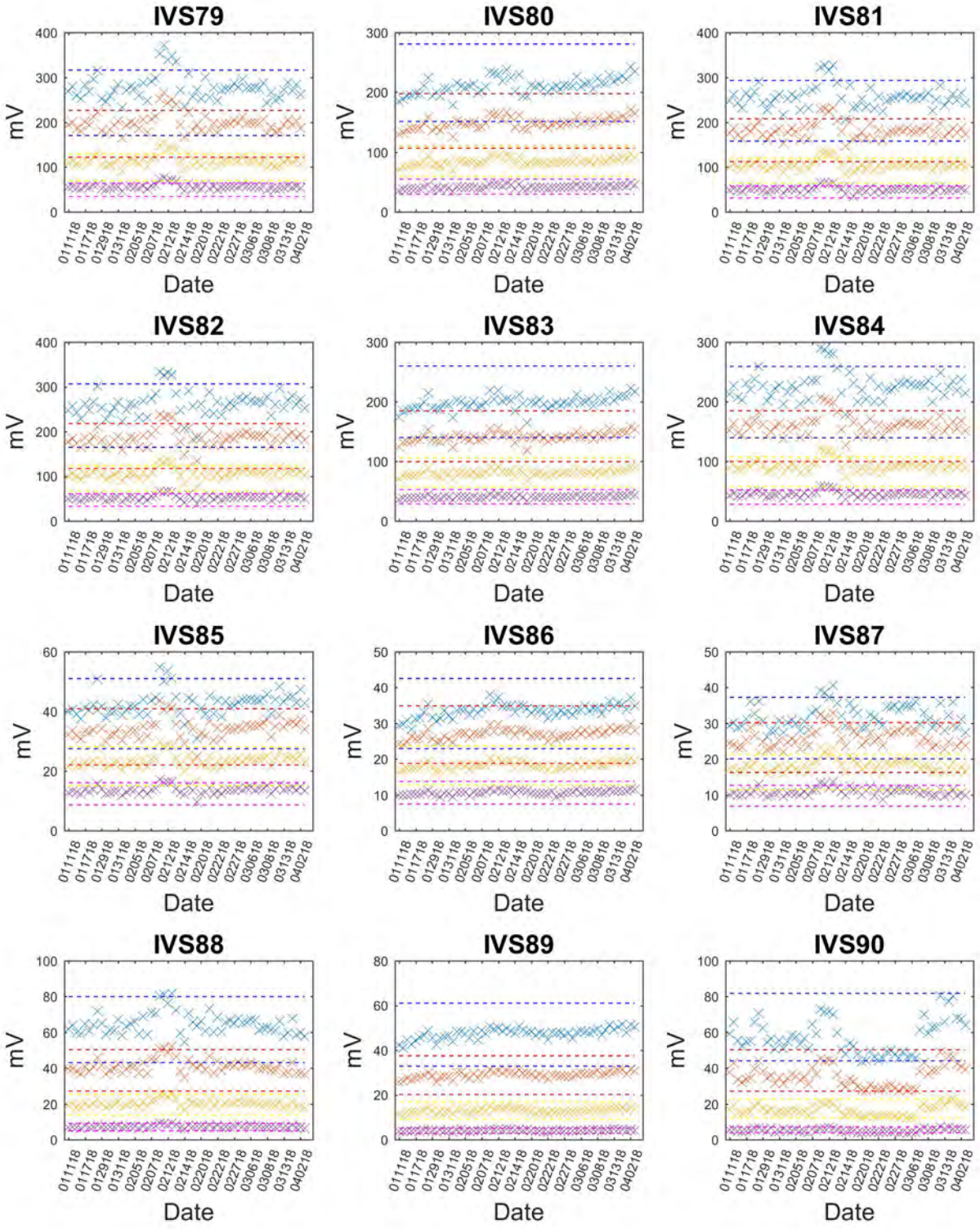


Figure 4. DGM response of IVS items for Unit B-2A for each survey day. X symbols represent peak anomaly response for channel 1 (blue), channel 2 (red), channel 3 (yellow), and channel 4 (purple) for each IVS item. Dashed lines represent the allowable variability (+/- 25% of predicted response) established in WS #22.

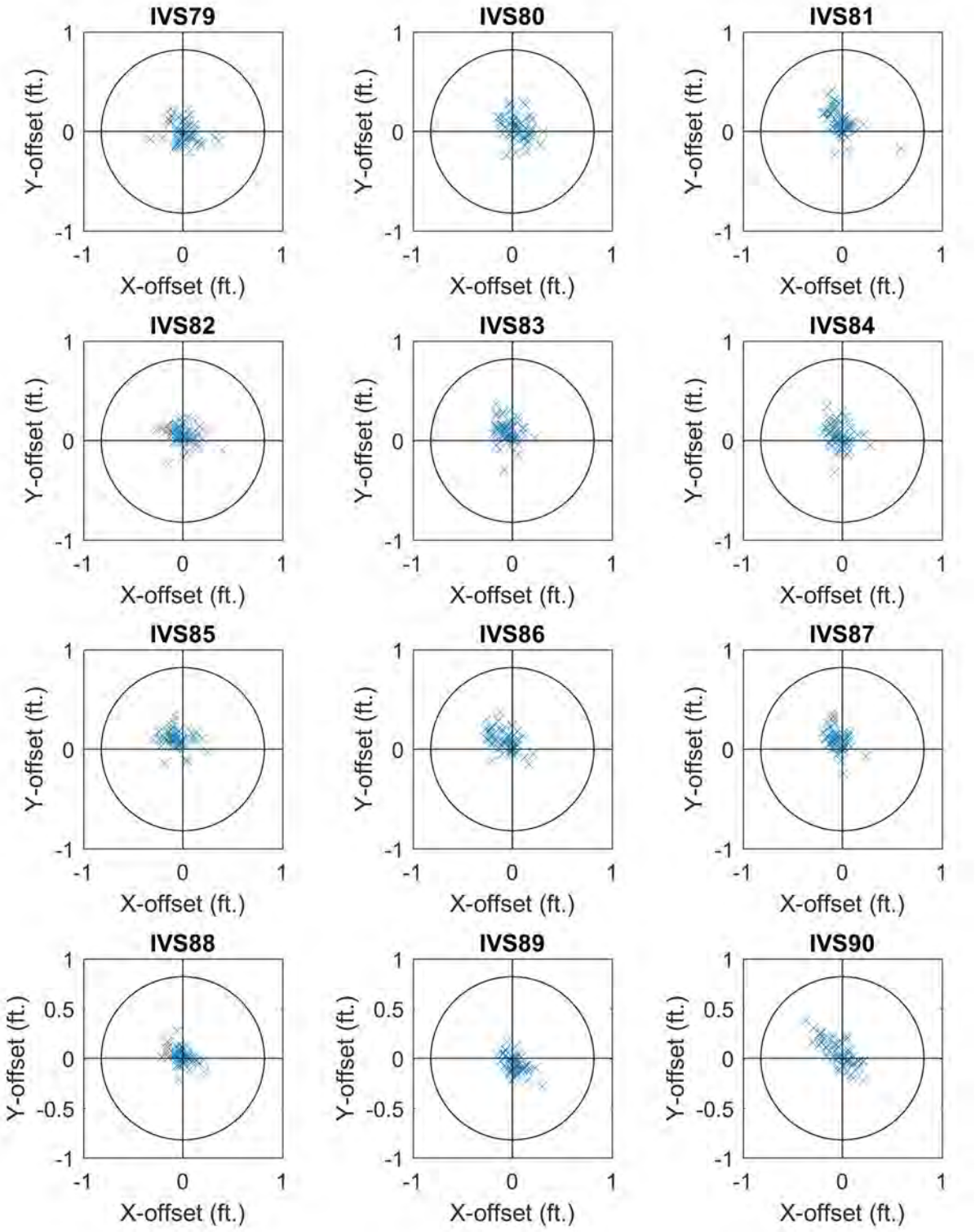


Figure 5. Daily IVS positioning results for Unit B-2A. Blue X's show the offset between picked DGM anomaly and the IVS ground truth. Black circle shows the maximum acceptable offset (0.82 ft.) established in WS #22.

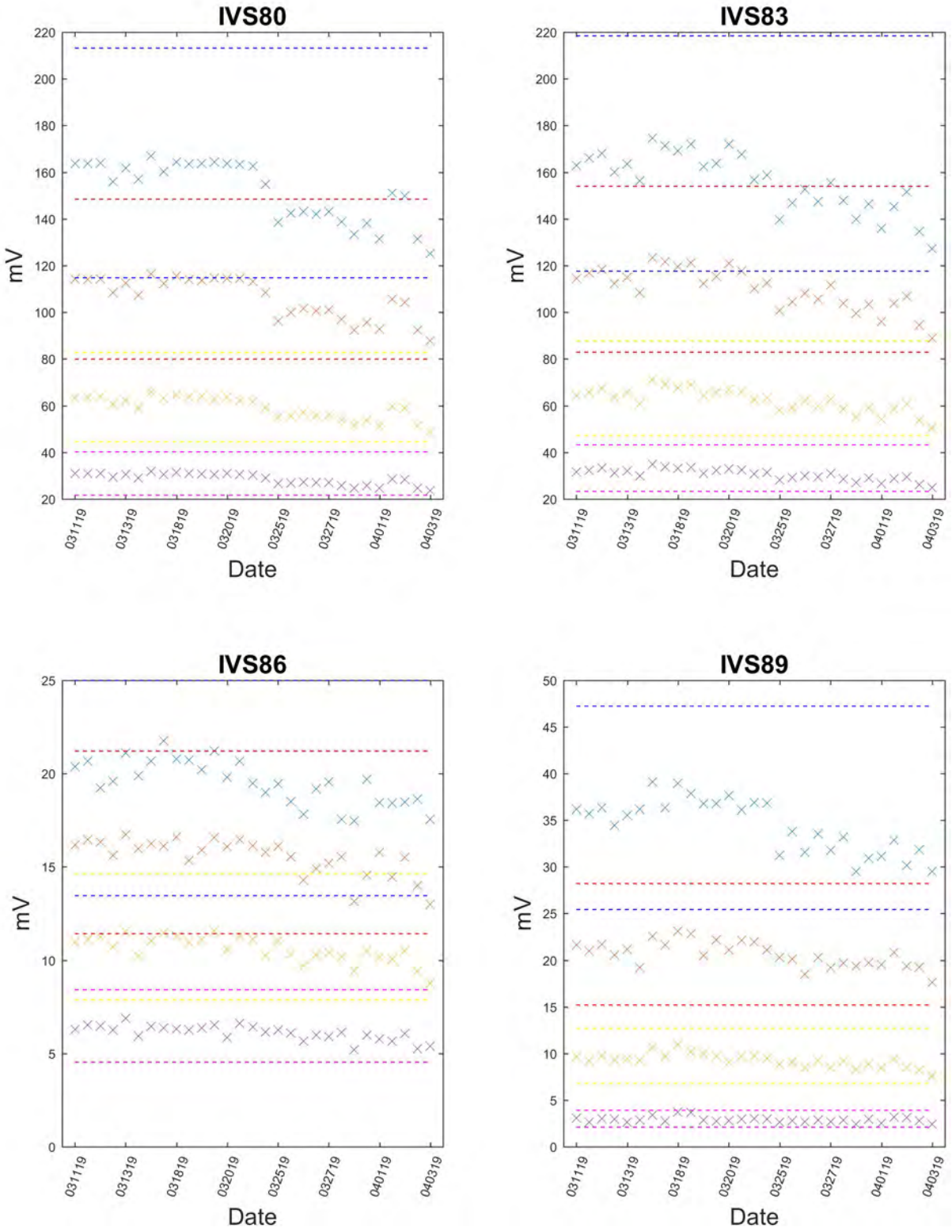


Figure 6. DGM response of IVS items for Person-Portable data in Unit B-2A for each survey day. X symbols represent peak anomaly response for channel 1 (blue), channel 2 (red), channel 3 (yellow), and channel 4 (purple) for each IVS item. Dashed lines represent the allowable variability (+/- 25% of predicted response) established in WS #22.

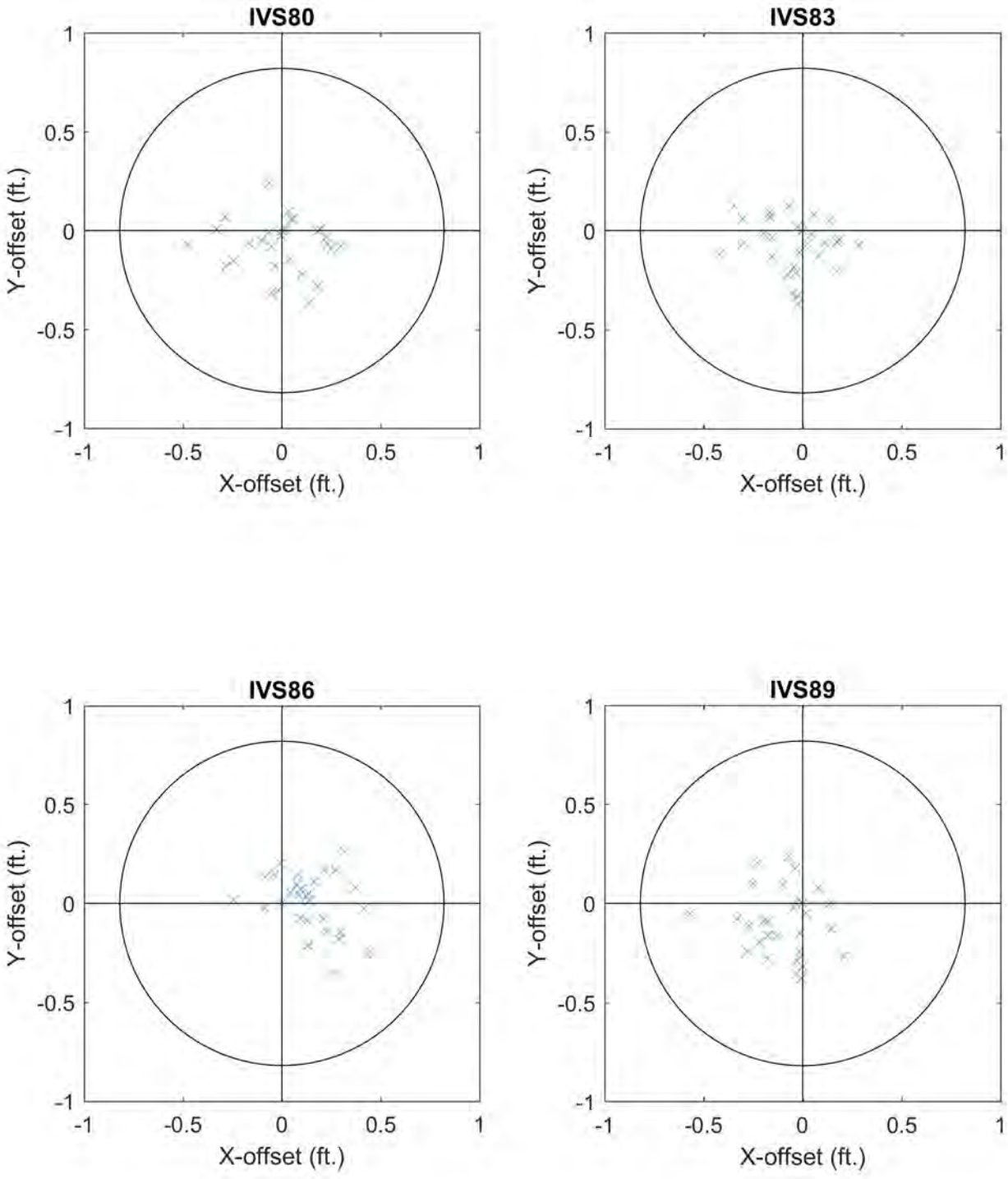


Figure 7. Daily IVS positioning results for Person-Portable DGM in Unit B-2A. Blue X's show the offset between picked DGM anomaly and the IVS ground truth. Black circle shows the maximum acceptable offset (0.82 ft.) established in WS #22.

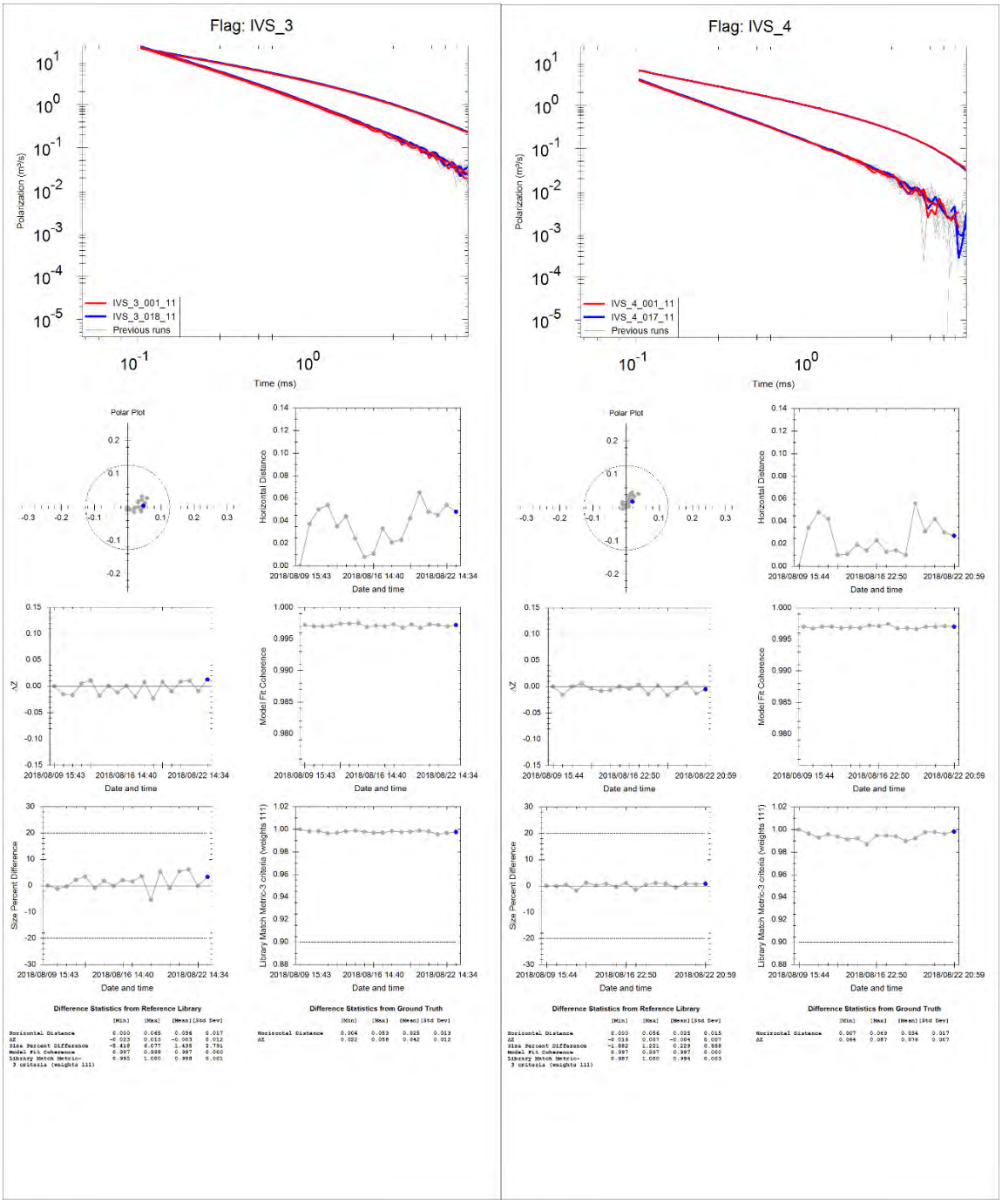


Figure 8. Upper plots show inverted polarizabilities for IVS items. Lower plots show daily MM2x2 QC tests for IVS items IVS_3 and IVS_4. Gray dots show all previous measurements, blue dot shows most recent measurement, and dashed lines show MQO acceptance criteria thresholds. MQOs are further discussed in FWV 012 to the AGCMR-QAPP.

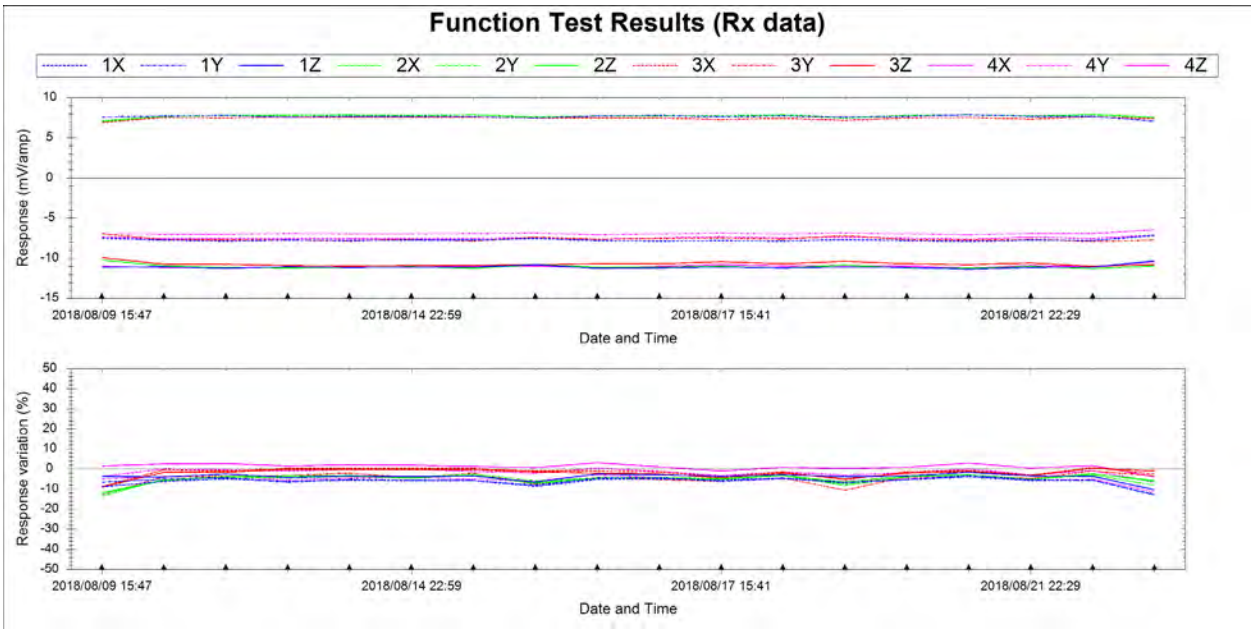


Figure 9. Daily QC results for MM2x2 sensor function test.

6.0 TABLES

Data Type	Data Quality Indicator (DQI)	QC Sample and/or Activity to Assess Measurement Performance	Measurement Quality Objective (MQO)	Frequency	Consequence of Failure (a)
Cable Shake Test	Sensitivity	Instrument Response Tests at the IVS	Cable shake test: 98% of response values will not excseed +/- 2 mV when system cables are moved (for all EM61MK2 channels)	Once Daily (AM)	Do not proceed with DGM field activities until failure is resolved and cable shake test has passed.
Personnel Test	Sensitivity	Instrument Response Tests at the IVS	Personnel test (PP): 98% of response values (due to proximity of data collection personnel) will not exceed +/- 2 mV (for all EM61MK2 channels).	Once Daily (AM)	Do not proceed with DGM field activities until failure is resolved and personnel test has passed.
Tow Vehicle Test	Sensitivity	Instrument Response Tests at the IVS	Tow vehicle test (towed array): 98% of response values (due to elevated two vehicle RPM) will not exceed +/- 2 mV (for all EM61MK2 channels).	Once Daily (AM)	Do not proceed with DGM field activities until failure is resolved and tow vehicle test has passed.
Static repeatability (instrument functionality) (b)	Accuracy/Precision	Instrument Response Tests at the IVS	98% of the daily static background response values (no test object) will not exceed +/- 2 mV of expected baseline response (for all EM61MK2 channels). (d) 98% of the response values to the standard spike test item (a small ISO fixed at an orientation and distance from the sensor to provide an approximately 100 mV response on channel 2 of the EM61MK2) will not exceed +/- 10% of the expected baseline response (for all EM61MK2 channels). (d)	Twice Daily (AM/PM)	If failure occurs during the AM static test, do not proceed with DGM field activities until failure is resolved and AM static test(s) have passed. If failure occurs during PM static test, the day's data fails unless BSI is mapped that day with repeatable anomaly characteristics (see dynamic detection repeatability (GSV blind seeding)).

Along track sampling	Completeness	DGM Data Set or Grid	98% <= 0.65 ft. (20 cm)	By grid or dataset (c)	Submittal fails.
Coverage	Completeness	DGM using GPS Positioning: DGM Data Set or Grid	Category A (towed array): A lane spacing of 2 ft is to be used for the twoed array. 95% (or greater) of the lane spacing is to be at the project design lane spacing of 2 ft. 100% of the lane spacing is to be at 3 ft. No unexplained data gaps. Category B (towed array): A lane spacing of 2 ft is to be used for the towed array. 95% (or greater) of the lane spacing is to be at the project design lane spacing of 2 ft. 98% (or greater) of the lane spacing is to be at 3 ft.	By grid or dataset (c)	Data gaps must be filled in before submittal is accpted.
Dynamic detection repeatability (IVS)	Accuracy/Precision	Instrument Response Tests at the IVS	98% of the dynamic background response values during the daily IVS survey will not exceed +/- 3 mV of expected baseline response (for all EM61MK2 channels). (d) Instrument response to each IVS item will be within +/- 25% or +/- 2 mV(whichever is greater) of the expected baseline response (for all EM61MK2 channels). The baseline response for each IVS item will be the average of the instrument responses to that item measured during the first week of IVS surveys. (d)	Twice Daily (AM/PM)	If failure occurs during the AM IVS test, do not proceed with DGM field activities until failure is resolved and AM dynamic IVS test(s) have passed. If failure occurs during PM IVS test, the day's data fails unless BSI is mapped that day with repeatable anomaly characteristics (see Dynamic Detection Repeatability (GSV blind seeding)).
Dynamic detection repeatability (GSV blind seeding)	Sensitivity/Accuracy/Precision/Completeness	DGM Data Set or Grid	All BSIs must be located. Peak response >75% of maximum expected BSI response. (d)	1 per day per team (# per acre to be based on production rate)	Submittal fails.

Dynamic positioning repeatability (IVS)	Accuracy/Precision	Instrument Response Tests at the IVS	Position offset of IVS targets < 25 cm.	Twice Daily (AM/PM)	If failure occurs during the AM IVS test, do not proceed with DGM field activities until failure is resolved and AM dynamic IVS test(s) have passed. If failure occurs during PM IVS test, the day's data fails unless BSI is mapped that day with repeatable anomaly characteristics (see Dynamic Positioning Repeatability (GSV blind seeding)).
Dynamic positioning repeatability (GSV blind seeding)	Sensitivity/Accuracy/Precision/Completeness	DGM Data Set or Grid	90% positioning offset is <= 25 cm + 1/2 line/sensor spacing and 100% is <= 35 cm + 1/2 line/sensor spacing for digital positioning systems. For Towed Array DGM using 2 ft line spacing (Category A and Category B) and RTK-GPS: 90% <= 22 inches 100% <= 26 inches	1 per team per day (# per acre to be based on production rate - same as dynamic detection repeatability (GSV blind seeding)).	Submittal fails.
Velocity	Completeness	DGM Data Set or Grid	95% of all geophysical measurements with the EM61MK2 will be collected at a speed not to exceed 4 miles per hour (1.8 meters per second)	By grid or dataset (c)	Submittal fails.
Target Selection	Completeness	DGM Data Set or Grid	All dig list targets are selected according to project design as detailed in the SSWP	By grid or dataset (c)	Submittal fails.
Geodetic equipment functionality	Accuracy/Precision	GPS Function check at IVS	GPS position checks will not exceed +/- 3 inches (7.6 cm) from the established baseline position.	Once Daily (AM)	Do not proceed with DGM field activities until failure is resolved and positional check has passed.

Geodetic accuracy	Accuracy/Precision	GPS Function Check of Positional monuments used for RTK-GPS base station(s)	Project control points that are used more than once must be repeatable to within 5 cm (e).	For points used more than once, occupation will be repeated (f) for each point used, either monthly (for frequently used points) or before re-use (if used infrequently) (g).	Reset points not located at original locations or resurvey point.
Verify Field Work Methods	Accuracy/Precision	QC Geophysicist will monitor field team work methods.	Verify work methods are being performed in accordance with MEC QAPP, SOPs, and SSWP.	Daily	Stop work. Generate an RCA, CAR, and CAP (as necessary). Implement corrective actions.
DGM Data Reprocessing	Sensitivity/Accuracy/Precision/Completeness	10% of DGM Data Set or Grid	DGM data will be reprocessed by the QC Geophysicist in accordance with GEO SOP 8 (Geophysical QC).	Daily	Stop work. Generate an RCA, CAR, and CAP (as necessary). Implement corrective actions.

Table 1. DGM MQO table for the towed array system.

(a) All failures require an RCA.

(b) Duration of data collection is 1 minute for background, 1 minute for spike and 1 minute for second background measurement. All static repeatability is to be compared to original readings to ensure instrument is consistent throughout the project.

(c) The terms grid and dataset refer to logical groupings of data or data collection event. Logical groupings of data are contiguous areas mapped by the same instrument and in the same relative timeframe. These can be grids, acres, or some other unit of area. A data collection event is similar to logical groupings of data but refers to data collected over a contiguous timeframe, such as morning, afternoon, battery life, or some other measure of contiguous time.

(d) For static background, the expected baseline mV response is to be based on an average of all the static background readings collected during the first four days (or first week). For static spike the expected baseline peak mV response is to be based on an average of all the static spike readings collected during the first four days (or first week). For the IVS background, the expected baseline mV response is to be based on an average of all the IVS background readings for the first four days (or first week). For the IVS spike, the expected baseline mV response is to be based on an average of all the IVS spike readings for the first four days (or first week). For GSV BSI items the baseline mV response will be determined by recording an additional survey line that is offset ½ of the planned survey line spacing (1 ft) from the center of the seeded IVS line. This offset line will be recorded twice daily (am/pm) during the first four days (or first week) of DGM operation with the PP system(s) and the baseline mV response to be used for BSIs (for PP and towed array systems) will then be calculated by averaging all of the peak readings for each ISO at this 1 ft offset. Note that separate baselines will be generated and used for the PP and towed-array system static and IVS tests.

(e) GPS base station coordinates that are currently being used are provided by USACE/BRAC.

(f) Repeat occupation means demonstrate the control points being used can be recovered and reoccupied and that they have not moved more than the requirement specification. This can be accomplished using the same methodology used to initially tie the local network to a HARN, CORS, OPUS, or other recognized network, or it can be accomplished by other means that achieve this requirement.

(g) An example of frequently used control points would be points used as RTK DGPS base stations. Infrequently used points could be those used during GPS operations where the control point was used during mapping and then again at some later time for reacquisition and QC statistical sampling. Infrequently used points also could include grid corners; they are used for line and fiducial positioning and then reused for reacquisition or QC statistical sampling.

Note: Although it is highly unlikely, should an area originally categorized and seeded for Category B (i.e. seeded for DGM at a rate of approximately 1 Blind Seed Item (BSI) for every 4 acres and not planned for intrusive investigation) then be upgraded to Category A after DGM has been completed (i.e. should be seeded at a rate of 1 BSI per dig team per day and planned for intrusive investigation), that if the dig team does not have 1 BSI per dig team per day that this would not constitute a QC failure because the density of BSIs installed would have been based on the original selection of this area as Category B. The rationale for stating this scenario is that once the DGM data has been collected, it is impossible to add additional BSIs (i.e. add additional anomalies to the previously collected DGM data). If this scenario does occur, it has been identified in the QAPP and discussed in relation to QC objectives and their pass/fail criteria.

MQO	DFW/SOP Reference	Frequency	Responsible Person/Report Method	Acceptance Criteria	Failure Response
QC seed item placement	Place Subsurface QC Seeds/ SOP AGCMR-03	Evaluated for each QC seed item	QC Geophysicist / Final Seed Report	Each seed item has been buried away from the immediate vicinity of strong anomalies, the burial parameters have been recorded with 1-inch precision for locations, 2-inch precision for depths, and 10° precision for inclinations and azimuths, and a photograph has been taken of the item in place.	CA: Replace the seed item, if necessary, or reacquire burial parameter information prior to commencement of data acquisition activities.
Verify correct MetalMapper 2x2 assembly	Cued Classification Survey/ SOP AGCMR-01	Once following assembly	Data Acquisition Geophysicist/Assembly Checklist	As specified in SOP AGCMR-01, Assembly Checklist	CA: Make necessary adjustments and re-verify
Initial sensor function test (five measurements over an emplaced IVS item, 1 with item directly under center of array and 1 each with item centered under each diagonal quadrant of the array). Derived polarizabilities for each measurement are compared to the classification library using UXA	Cued Classification Survey/ SOP AGCMR-01/ SOP AGCMR-08	Once following assembly	Data Acquisition Geophysicist/Assembly Checklist/Lead Data Processor	Library Match metric ≥ 0.95 for each of the five sets of inverted polarizabilities	CA: make necessary repairs/adjustments and re-verify
Initial sensor function test (five measurements over an emplaced IVS item, 1 with item directly under center of array and 1 each with item centered under each diagonal quadrant of the array). Modeled locations are compared to the known location of the schedule 80 small industry standard object (ISO 80) for each measurement.	Cued Classification Survey/ SOP AGCMR-01/ SOP AGCMR-08	Once following assembly	Data Acquisition Geophysicist/Assembly Checklist/Lead Data Processor	Modeled location of each measurement is under the correct quadrant of the TEMTADS sensor array	CA: make necessary repairs/adjustments and re-verify

MQO	DFW/SOP Reference	Frequency	Responsible Person/Report Method	Acceptance Criteria	Failure Response
Initial IVS background measurement (five background measurements – 1 centered at the flag and 1 offset 15 inches (40cm) in each cardinal direction)	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Once during initial system IVS test	Data Acquisition Geophysicist/Initial IVS Technical Memorandum/ Lead Data Processor	Decay amplitudes are below the selected background threshold at each offset background location	CA: reject/replace BG location
Initial derived polarizabilities accuracy (IVS)	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Once during initial system IVS test	Lead Data Processor and Gilbane Project Geophysicist/Initial IVS Technical Memorandum	Library Match metric ≥ 0.9 for each set of inverted polarizabilities	RCA/CA
Initial derived target position accuracy (IVS)	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Once during initial system IVS test	Lead Data Processor and Gilbane Project Geophysicist/Initial IVS Technical Memorandum	All IVS item fit locations within 5 inches of ground truth locations	RCA/CA
Ongoing IVS background measurements	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Twice daily as part of IVS testing	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	All decay amplitudes lower than project threshold and qualitatively agree with initial measurement	RCA/CA CA assumption: rejection of BG measurement (unless RCA indicates system failure)
Ongoing derived polarizabilities precision (IVS)	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Twice daily as part of IVS testing	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	Library match to initial polarizabilities metric ≥ 0.9 for each set of three inverted polarizabilities	RCA/CA
Ongoing derived target position precision (IVS)	Cued Classification Survey/ SOP AGCMR-02/ SOP AGCMR-07/ SOP AGCMR-08	Twice daily as part of IVS testing	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	All IVS item fit locations within 5 inches of average of derived fit locations	RCA/CA
Initial measurement of production area background locations	Cued Classification Survey/ SOP AGCMR-04/ SOP AGCMR-08	Once per background location	Data Acquisition Geophysicist and Lead Data Processor/ tracking summary	All decay amplitudes lower than project threshold	CA: reject BG location and find alternate
Ongoing production area background measurement frequency	Cued Classification Survey/ SOP AGCMR-04/ SOP AGCMR-07	Evaluated for each background measurement	Data Acquisition Geophysicist/failures noted in field log and tracking summary	Time separation between background measurement and anomaly measurement < 2 hour	CA: reject data that does not have a corresponding background measurement recorded within acceptable time period
Ongoing production area background measurement	Cued Classification Survey/ SOP AGCMR-04/ SOP AGCMR-07/ SOP AGCMR-08	Evaluated for each background measurement	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	All decay amplitudes lower than project threshold and qualitatively agree with initial measurement	CA: background measurement rejected and reacquired

MQO	DFW/SOP Reference	Frequency	Responsible Person/Report Method	Acceptance Criteria	Failure Response
Transmit current levels	Cued Classification Survey/ SOP AGCMR-07	Evaluated for each sensor measurement	Data Acquisition Geophysicist/failures noted in field log and tracking summary	Peak transmit current ≥ 5.5 amps	CA: reject data acquired with current levels outside of the acceptable range
Initial anomaly (flag) location interrogated	Cued Classification Survey/ SOP AGCMR-07/ SOP AGCMR-08	Evaluated for each flag position	Data Acquisition Geophysicist/failures noted in field log and tracking summary	For each anomaly, a measurement must be acquired with the center of the array < 16 inches from the flag location.	CA: Reacquire measurement at flag location
Position data are valid (1 of 2)	Cued Classification Survey/ SOP AGCMR-07	Evaluated for each sensor measurement	Data Acquisition Geophysicist/failures noted in field log and tracking summary	GPS status flag indicates RTK fix	RCA/CA
Position data are valid (2 of 2)	Cued Classification Survey/ SOP AGCMR-07/ SOP AGCMR-08	Evaluated for each sensor measurement	Data Acquisition Geophysicist/Lead Data Processor/tracking summary	Orientation data valid Data input string checksum passes	RCA/CA
Confirm inversion model supports classification (1 of 2)	Cued Classification Survey/ SOP AGCMR-08	Evaluated for all models derived from a measurement (i.e., single item and multi-item models)	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	Derived model response must fit the observed data with a fit coherence > 0.8	CA: If no valid model is derived, classify as inconclusive
Confirm inversion model supports classification (2 of 2)	Cued Classification Survey/ SOP AGCMR-08	Evaluated for derived target	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	Fit location estimate of item ≤ 15 inches from center of sensor	CA: If no target within 15 inch radius using multi-solver inversion, classify as inconclusive
Confirm all anomalies classified	Cued Classification Survey/ SOP AGCMR-08	Evaluated for each anomaly (flag) location	Lead Data Processor and Gilbane Project Geophysicist/tracking summary	100% of anomalies are classified as: TOI/ Non-TOI/Inconclusive	Documentation required identifying reason for missing data with RCA/CA if necessary. If data cannot be acquired, classify as inconclusive.
Confirm reacquisition GPS accuracy and precision	Intrusive Investigation/ SOP AGCMR-09	Daily	Reacquisition Geophysicist/Daily Report	Benchmark positions repeatable to within 3 inches	CA: Make adjustments and re-verify
Confirm derived features match ground truth (1 of 2)	Intrusive Investigation/ SOP AGCMR-09	Evaluated for all recovered items	QC Geophysicist/QC reports	95% of recovered item positions < 10 inches from predicted position	RCA/CA
Confirm derived features match ground truth (2 of 2)	Intrusive Investigation/ SOP AGCMR-09	Evaluated for all recovered seed items	QC Geophysicist/QC reports	100% of predicted seed item positions < 10 inches from known position	RCA/CA

MQO	DFW/SOP Reference	Frequency	Responsible Person/Report Method	Acceptance Criteria	Failure Response
Classification performance	Intrusive Investigation/ SOP AGCMR-09	For each delivered dig list	QC Geophysicist/QC reports	100% of seed items classified as TOI	RCA/CA
Classification validation	Intrusive Investigation/ SOP AGCMR-09	For each delivered dig list	QC Geophysicist/QC reports	100% of predicted intrusively investigated non-TOI are confirmed to be non-TOI	RCA/CA

Table 2. MetalMapper 2x2 cued measurement MQO table

Seed ID	Grid	Reported Sum Response (mV)	Response Passes?	Total Offset (in)	Positioning Passes?
B2A004G	C4C2G0	481.57	Yes	4.04	Yes
B2A007G	C4D3A2	229.92	Yes	6.97	Yes
B2A016G	C4D3E7	345.22	Yes	16.01	Yes
B2A003G	C4D2B8	444.04	Yes	6.01	Yes
B2A002G	C4D2C6	493.70	Yes	9.92	Yes
B2A001G	C4D2E4	347.97	Yes	6.46	Yes
B2A008G	C4D2E9	331.69	Yes	7.36	Yes
B2A018G	C4D3J5	281.89	Yes	14.09	Yes
B2A017G	C4D3H6	388.78	Yes	10.15	Yes
B2A009G	C4D3G1	310.06	Yes	2.79	Yes
B2A005G	C4C3D1	312.65	Yes	9.35	Yes
B2A006G	C4C3I3	255.95	Yes	16.84	Yes
B2A013G	C4D4B2	387.94	Yes	0.83	Yes
B2A015G	C4D3C9	404.82	Yes	6.59	Yes
B2A011G	C4D4H3	376.62	Yes	9.61	Yes
B2A014G	C4C4J4	623.19	Yes	12.28	Yes
B2A012G	C4D4E4	329.76	Yes	10.71	Yes
B2A010G	C4D4J1	340.05	Yes	17.94	Yes
B2A019G	C4E3A4	227.14	Yes	6.67	Yes
B2A028G	C4C3E8	198.73	Yes	9.36	Yes
B2A020G	C4D3I4	220.25	Yes	10.95	Yes
B2A021G	C4D3G3	200.21	Yes	6.51	Yes
B2A025G	C4D3A6	231.38	Yes	1.77	Yes
B2A027G	C4C3G4	270.16	Yes	11.61	Yes
B2A026G	C4C3I7	185.00	Yes	3.87	Yes
B2A022G	C4D3F3	207.80	Yes	7.80	Yes
B2A024G	C4D3C4	139.18	Yes	16.21	Yes
B2A023G	C4D3D3	254.10	Yes	10.78	Yes

Table 3. Blind QC seed response and positioning results in Unit B-2A.

Target ID	Channel 1 (mV)	Channel 2 (mV)	Channel 3 (mV)	Channel 4 (mV)	Channel Sum (mV)	Pass QA
C4C3E0-0001	1.3	0.6	0.4	0.2	2.5	Yes
C4C3E8-0001	1.2	0.5	0.3	0.2	2.2	Yes
C4C3F4-0001	2.3	1.0	0.6	0.3	4.2	Yes
C4D3A6-0001	2.7	0.6	0.3	0.2	3.8	Yes
C4D3I3-0001	1.5	1.2	0.7	0.2	3.6	Yes
C4D3J4-0001	4.9	3.2	1.7	1.4	11.2	Yes

Table 4. Unit B-2A trail buffer QA target investigation.

Appendix I

Response to Comments

RESPONSES TO COMMENTS

Document:	Bureau of Land Management Area B Unit B-2A Munitions and Explosives of Concern Remedial Action Technical Memorandum Former Fort Ord, California, June 2019
Commenting Organization:	United States Environmental Protection Agency Region IX (EPA)
Name:	Maeve Clancy
Date of Comments:	July 25, 2019

General Comment 1:

The Bureau of Land Management (BLM) Area B Unit B-2A Munitions and Explosives of Concern (MEC) Remedial Action (RA) Technical Memorandum (TM), Former Fort Ord, California, dated June 2019 (hereinafter referred to as the BLM Area B Unit B-2A MEC RA TM), notes the discovery of a "4.2-inch screening smoke mortar projectile" for which the filler could not initially be identified. It is not noted that the issue prompting the concern is the fact that the projectile filler was a liquid. Without positive identification of the liquid filler, the potential existed for it to be any of a number of liquid chemical warfare agents (CWA) that are extremely hazardous. Please revise Section 2.1.2, Technology-Aided Surface MEC Removal, to explain the reasons why the discovery of a liquid filled 4.2-inch mortar projectile was of significant concern requiring the actions taken.

Response to General Comment 1:

Section 2.1.2 will be modified with the additional text to the second paragraph:

"A 4.2-inch screening smoke mortar projectile was recovered during surface MEC removal operations on December 11, 2017. Liquid filled 4.2-inch mortar projectiles have the potential to be used for delivery of chemical warfare agent; however, those previously encountered at Fort Ord have all been determined to contain screening smoke fillers. Since the filler cannot be confirmed visually, the 4.2-inch mortar was initially classified as a munition with unknown filler. Both the Department of Defense and USACE guidance specify that only Explosive Ordnance Disposal (EOD) or Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) response personnel can determine the most likely filler present in a munition. In accordance with standard operating procedures (SOPs), active duty EOD personnel were contacted to determine the filler of this item (Appendix D). It was confirmed as smoke-filled, and was subsequently subjected to a detonation…."

General Comment 2:

Section 2.1.5, Risk Reduction, states in the last paragraph on Page 7 that "All AGC selected anomalies (targets) were investigated in October 2018. For Category 0, 2, and 3 targets, if a depth of 18 inches was reached and no item was encountered, excavation was stopped and the excavation was backfilled." It is unclear as to why the 18 inch depth was selected, when excavation of the anomalies in the saturated response areas (SRAs) were investigated to a depth of 24 inches per Section 2.1.5.2, Saturated Response Areas. Please explain the reason for the different excavation depths.

Response to General Comment 2:

The limited subsurface investigation focused on removing anomalies that have the potential to be 4.2-inch mortar projectiles in shallow subsurface, since one unknown filler-type item was previously recovered during surface removal in Unit B-2A. Advanced Geophysical Classification (AGC) was utilized in the Primary Area. As described in the final paragraph of Section 2.1.5, anomalies that were categorized as high-confidence target of interest (TOI) (Category 1 targets) were intrusively investigated with no restriction on excavation depth. For other anomalies (Category 0, 2, and 3 targets), the targets are less likely to be TOI; if a depth of 18 inches was reached and no item was encountered, it is confidently assumed that the target is not TOI. Subsurface removal in the SRAs was not conducted using AGC, and anomalies were intrusively investigated to a depth of 24 inches.

Specific Comment 1:

Table 1, Unit B-2A MEC Items Recovered Prior to Remedial Action, Page 2: The next-to-last row in the table lists a munition described as a "Signal, ground, rifle, parachute, M17 series." This is not the official nomenclature for the subject item as found in the Department of the Army Ammunition Data Sheets. The other signals listed in the table are correctly formatted, although the nomenclature is somewhat abbreviated. Following the examples of the other signals, the correct nomenclature for the noted signal would be "Signal, Illumination, ground, M17 series." The fact that it is fired by a rifle is not included in the title of the item. Please correct the noted item in Table 1 and at other occurrences found in the BLM Area B Unit B-2A MEC RA TM (unless there is some identifiable reason to list the item as currently found in the TM).

Response to Specific Comment 1:

The nomenclature for all "Signal, ground, rifle, parachute, M17 series" will be changed to "Signal, illumination, ground, parachute, M17 series".

Specific Comment 2:

Section 2.1.1, Vegetation Clearance, Page 4: The first paragraph of this section states that "Vegetation cutting was not conducted in the approximately 40-foot wide Trail Buffer area during the 2017 Operations." No reason is stated as to why this was not done. Please revise the cited section to provide a short discussion of the reason(s) that the noted vegetation cutting was not accomplished during the "2017 Operations."

Response to Specific Comment 2:

As described in Section 2.0, field work was completed in phases to continually assess the possibility of maintaining the Trail Buffer to preserve the trail character. To address community interest in trail access for this area, the approximately 40-foot wide Trail Buffer area was set aside from the initial work in the Primary Area, which started in September 2017. For clarification, the statement in Section 2.1.1 will be modified to the following:

"Vegetation cutting was not conducted in the approximately 40-foot wide Trail Buffer area during the 2017 ~~O~~operations and was conducted during the Trail Buffer Phase (Section 2.3) which started in January 2019."

Specific Comment 3:

Section 2.1.5.1, Data Gap Areas, Page 8: The first paragraph of the section states that "The DGM dataset mV responses were evaluated, including around the data gaps." It is unclear as to what is intended by the statement "…including around the data gaps." It is also unclear as to how much of the area "around the data gaps" was investigated. Please revise the cited section to provide the noted information.

Response to Specific Comment 3:

For clarification, the text in the first paragraph of Section 2.1.5.1 will be updated to the following:

Original text: "The 4.2 inch mortar is a relatively large item that can be seen in mV response adjacent to the item. The DGM dataset mV responses were evaluated, including around the data gaps. The geophysical team made the determination that data gaps larger than 36 square feet maintain the potential to contain a 4.2-inch mortar. If no large mV response is present in the area near the data gap and the gap is smaller than 36 square feet it was determined that these smaller gaps were unlikely to contain a 4.2-inch mortar. Therefore gaps less than 36 square feet in size with no large mV responses around them were not included in the data gap clearance effort."

Updated text: "The 4.2-inch mortar is a large item and can be detected by an EM61 at a distance greater than three feet from the item. A data gap would need to be wider than six feet to contain

an undetected 4.2-inch mortar. Therefore, the geophysical team made the determination that data gaps larger than 36 square feet maintained the potential to contain a 4.2-inch mortar and required analog subsurface investigation. Data gaps less than 36 square feet in size with no elevated EM61 response adjacent to data gap did not require further investigation."