

EP ID 59057

ENVIRONMENTAL HAZARDS SPECIALISTS
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12-100000-1-11

January 27, 1994

FINAL SITE SURVEY REPORT
FOR THE
UXO\OEW CLEARANCE OF
SWMU 0-11(A), SWMU 0-11(E), SWMU 0-011(C) & AOC C-0-020
LOCATED AT LOS ALAMOS, NEW MEXICO

BY
ENVIRONMENTAL HAZARDS SPECIALISTS
INTERNATIONAL, INC.

THIS SURVEY WAS CONDUCTED FROM
APRIL 15, 1993 THRU SEPTEMBER 25, 1993

Received by ER-RPF
MAY 06 1998
MA

30734



FINAL SITE SURVEY REPORT

ENVIRONMENTAL HAZARDS SPECIALISTS INT, INC was contracted by the University of California, Los Alamos National Laboratory, Los Alamos, New Mexico to perform an Unexploded Ordnance (UXO) survey of (4) sites located on LANL property. A summary of daily operations all changes and site drawings was submitted with each monthly invoice.

GENERAL COMMENTS; The below listed project sites were heavily contaminated with surface debris and UXO\OEW metallic objects. The attached forms and contractor provided maps show the amounts and locations. The lanes can not be drawn as that is all you would see (2) maps are attached which show this. The active use of the rifle range caused a safety problem for a period of time but this was corrected as time went by. The weather did not slow the project down.

Two (2) of the sites were fenced SWMU 0-011(a) and SWMU 0-011(e). Both of these sites were contaminated with UXO\OEW.

SWMU 0-11(a) was originally 7 acres, it was expanded to approximately 24 acres as UXO\OEW was located outside of the fence lines. Actually the live ordnance rounds were found outside of the fenced area. These areas were subdivide into subareas B, C, and D. (see attached drawings). The dirt road that ran through this area was closed and excavated to conduct clearance operations, (2) burial pits containing mostly tires and UXO\OEW were excavated and cleaned out. EHSI ran QC checks on 30% of this area. GEOPHEX conducted QA\QC sweeps and EHSI interrogated there flags.

SWMU 0-11(e) was reduced by Mr J. Aldrich of LANL the new boundaries left about 12 acres to be cleared, these were surveyed in, and this area was surveyed and cleared. All of the rounds found were 37mm, they all were AP rounds but some did have a tracer element, it was decided at this time that all 37mm rounds would be explosively disposed of. EHSI conducted QC sweeps on 100 % of the main impact area. GEOPHEX only conducted QA/QC where they were able to walk.

The below sites contained no UXO\OEW, both areas were reduced in size by Mr. J. Aldrich of LANL.

SWMU C-0-020 was also reduced by Mr. J. Aldrich of LANL the reduced section was also grided out in the same manner, no UXO\OEW was encountered in this area. EHSI ran QA\QC grids on 15 % of the area. GEOPHEX contacts were also checked by EHSI, with negative results.

SWMU 0-11(c) was also reduced in area by Mr. J. Aldrich of LANL, the reduced section was also grided out in the same manner, no UXO\OEW was encountered in this area. EHSI ran QA\QC grids on 15 % of the area. GEOPHEX contacts were also checked by EHSI, with negative results

10001 * 10001 * 10001 * 10001

SEARCH OPERATION COMMENTS: With the exception of the cleared area at SWMU 0--11(a) all of the other search areas were extremely difficult to clear, search lanes were utilized at all times to maintain 100 per cent coverage of the areas concerned. The canyons and mountain sides were very steep on (2) of the sites EHSI personnel used repelling techniques to accomplish the UXO\OEW survey and to QA\QC our work.

RECOMMENDATIONS: The entire sites that were contracted to EHSI plus the enlarged area of 0-011(a) have all received a UXO\OEW survey, There was also a 25 foot lane out side of the search boundaries that was cleared so the surveyors had a cleared area to work and walk on. With the exception of the (2) areas that contained explosive materials, the other (2) sites were clear. Based on the current state-of-the-art technologies EHSI does not guarantee that 100% of all the UXO\OEW has been located and removed. The following recommendations are based on the limitations of the current state-of-the-art technologies used to locate UXO\OEW.

* SOIL ENTRY ACTIVITIES: Any task requiring excavation, soil borings, or other intrusive activities should not be performed below 3 feet in SWMU 0-011(a) and SWMU 0-011(e) with out on site UXO\OEW personnel on site.

* CLEARING AND GRUBBING OPERATIONS: If these services are required on the above mentioned sites UXO\OEW personnel should be on site. Because the active and passive magnetometers are directional in nature, the areas under the trees cannot be effectively searched and it is recommended that the areas that large trees are removed be checked for UXO\OEW.

* CONSTRUCTION EXCAVATION: Any and all construction activities (footings, utility poles, trenches, grading, "ETC" requiring soil removal or excavations below the depth of 3 feet should be searched for buried UXO. It should also be remembered that the Los Alamos area goes through freezing and thawing evolutions which will push ordnance items to the surface.

- Enclosure 1. Monthly summary of operations
- Enclosure 2. Search Procedures
- Enclosure 3. SWMU 0-011(a) Original map, contacts, lanes
- Enclosure 4. SWMU 0--11(a) expanded site, contacts, locations
- Enclosure 5. SWMU C-0-020 locations, maps, contacts
- Enclosure 6. SWMU 0-011(e) maps, contacts, location
- Enclosure 7. SWMU 0-011(c) maps, location, contacts

Environmental Hazards Specialists International, Inc. would like to thank LANL particularly the support given by the HDT Team, who responded immediately when we found live ordnance, as they provided all of the explosives and assistance in the field. ERM for all the support in the field and office. Also to Ms. Christine Othart in contracting who provided contracting assistance and always had our invoices here on time. If we can ever be of help in the future please call.

AGAIN THANK YOU.

Sincerely


Charles E. Wharton, Sr.
President

5-1505-112

MORTAR IMPACT AREA SWMU 0-011 (A)

The main impact area as marked with #1 is where we found approx. 103 of approx. 305 (total) 81mm and 60mm Tail Fins

Area #2 as marked, there were 38 out of over 200 (outside the fence) tail fins found and is the second highest area of concentration for Tail Fins and frag.

Area #3 is the area where the live 81mm and 60mm Mortar Rounds were found.

:
:

LANES

The lanes in SWMU 0-011 (A) ran basically North and South except in area "D" where they ran East and West due to the terrain.

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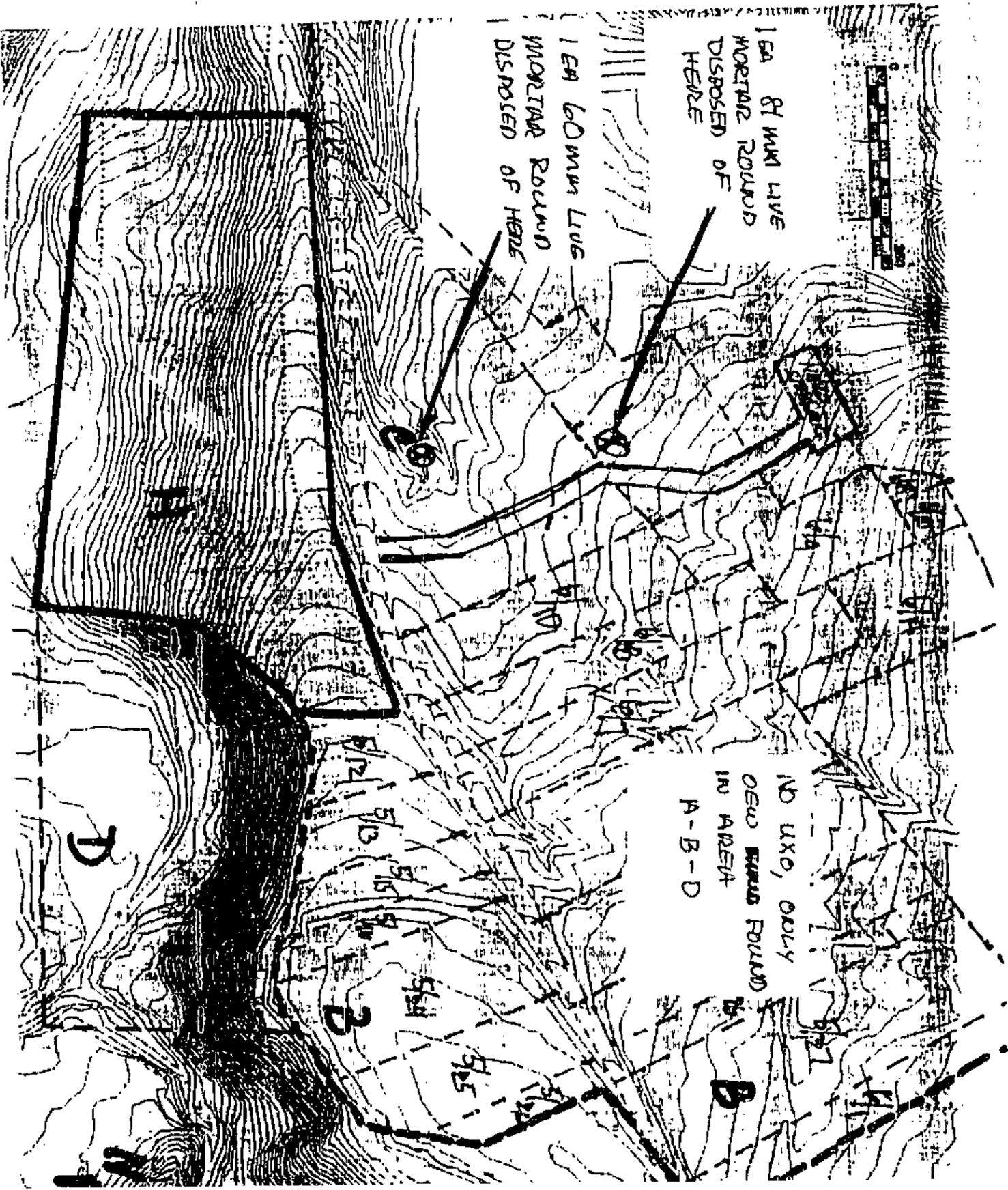
:

:

1 EA 84 MM LIVE
MORTAR ROUND
DISPOSED OF
HERE

1 EA 60 MM LIVE
MORTAR ROUND
DISPOSED OF HERE

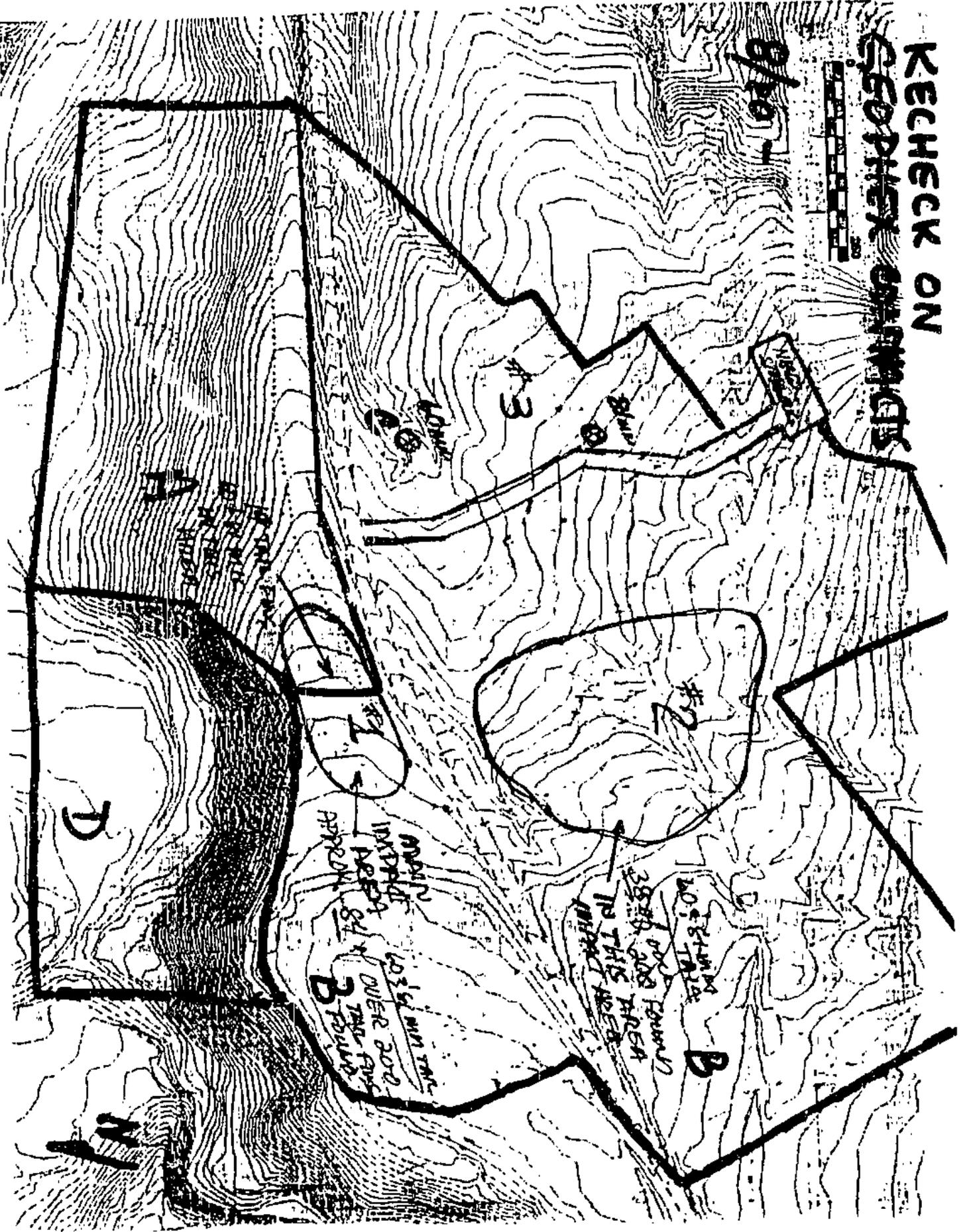
NO UXO, ONLY
DEAD ROUNDS FOUND
IN AREA
A-B-D



RECHECK ON SCOPING COMMANDS



0/00-1



NEARBY
712

Blair

#3

Lower

#2

#1

NO RETURN
TO THIS AREA

1 DO NOT FORWARD
35288 AND AREA
IN THIS AREA

NO RETURN
TO THIS AREA
35288 AND AREA
IN THIS AREA
3 FOUND

A
H. GARDNER
H. GARDNER
H. GARDNER

D

B

W

1901

Section D11(A) OUTSIDE FENCE

Phase ONE

5-11

Grid	Grid	Grid
1	21	41
2	22	42
3	23	43
4	24	44
5	25	45
6	26	46
7	27	47
8	28	48
9	29	49
10	30	50
11	31	51
12	32	52
13	33	53
14	34	54
15	35	55
16	36	56
17	37	57
18	38	58
19	39	59
20	40	60

5-11
NOTE
MAP

5-11
5-12

5-12
5-13

Section 011 (A) OUTSIDE FENCE

Phase ONE 5-11-97

Grid Grid Grid

61	N/C	81	NO CONTACT	101	2 OEW 60/61 TAIL FRAG
62	N/C	82	2 OEW 81/60 FRAG	102	1 OEW 61 TAIL FRAG
63		83	NO CONTACT	103	4 OEW 60/61 FRAG
64	NO CONTACT	84	3 OEW 60/61 FRAG	104	3 OEW 60/61 TAIL FRAG
65	NO CONTACT	85	2 OEW 60 FRAG	105	1 OEW 60 FRAG
66	" "	86	NO CONTACT	106	1 OEW 60 FRAG
67	" "	87	4 OEW 81/60 FRAG	107	2 OEW 60 FRAG
68	3 OEW 60 FRAG	88	1 OEW 61 FRAG	108	2 OEW 60 FRAG
69	4 OEW 60 FRAG	89	3 OEW 81/60 TAIL FRAG	109	N/C
70	3 OEW 81 FRAG 60 TAIL	90	2 OEW 60 FRAG	110	N/C
71	7 OEW 81/60 TAIL FRAG	91	2 OEW 60 FRAG (WEST)	111	2 OEW 60/61 TAIL FRAG
72	2 OEW 61/60 TAIL & FRAG	92	OEW NO CONTACT	112	N/C
73	3 OEW 60 FRAG	93	OEW " " "	113	2 OEW 60/61 FRAG
74	2 OEW (PART) 81/60 FRAG (DOWN)	94	OEW " " "	114	6 OEW 60/61 TAIL FRAG
75	3 OEW (PART) 60/61 FRAG (DOWN)	95	OEW " " "	115	5 OEW 60 FRAG/61 TAIL
76	2 OEW 60 FRAG	96	OEW " " "	116	6 OEW 60/61 TAIL FRAG
77	2 OEW 60 FRAG/FRAG	97	2 OEW 60 FRAG (EAST)	117	5 OEW 60/61 FRAG
78	1 OEW 81 TAIL	98	2 OEW 60/61 FRAG	118	6 OEW 60 FRAG QA
79	3 OEW 60 TAIL	99	2 OEW 60/61 TAIL FRAG	119	5 OEW 60 FRAG
80	NO CONTACT	100	1 OEW 60 FRAG	120	3 OEW 60/61 FRAG

Section 011(A) OUTSIDE FENCE

Phase ONE

5-11-01/

Grid		Grid		Grid	
121	3 DEW 100 FRAC	141	11 DEW	161	7 DEW
122	#2 DEW 60/4 FRAC	142	10 DEW	162	4 DEW
123	4 DEW 60 TAIL 100/4 FRAC	143	9 DEW	163	6 DEW
124	4 DEW 100 FT FRAC QA	144	9 DEW	164	5 DEW
125	5 DEW 60/4 TAIL FRAC	145	10 DEW	165	7 DEW
126	2 DEW 100/4 FRAC	146	10 DEW	166	5 DEW
127	5 DEW 60 TAIL FRAC	147	10 DEW	167	10 DEW
128	3 DEW 60 FRAC	148	DEW NO CONTACT	168	1 DEW
129	7 DEW 100/4 TAIL FRAC	149	3 DEW	169	DEW NO CONTACT
130	8 DEW 60/4 TAIL FRAC	150	3 DEW	170	3 DEW
131	10 DEW 60/4 TAIL FRAC	151	2 DEW	171	3 DEW
132	3 DEW	152	2 DEW	172	1 DEW
133	5 DEW	153	3 DEW	173	2 DEW
134	2 DEW QA	154	3 DEW	174	1 DEW
135	2 DEW	155	5 DEW	175	1 DEW
136	4 DEW	156	6 DEW QA	176	2 DEW
137	5 DEW	157	5 DEW	177	NO CONTACT
138	9 DEW	158	9 DEW	178	NO CONTACT
139	9 DEW	159	8 DEW	179	3 DEW
140	13 DEW	160	6 DEW	180	NO CONTACT

Section OIL (A)

OUTSIDE FENCE

Phase: ONE

5-11-93

Grid: [shaded] Grid: [shaded] Grid: [shaded]

181	1 DEW	21	1-DEW 1-UXO 60' FENCE ST-MOUNTING	21	3 DEW
2	2 DEW	2	3 DEW	2	NO CONTACT
3	2 DEW	3	2 DEW	3	" "
4	NO CONTACT	4	3 DEW	4	" "
5	3 DEW	5	NO CONTACT	5	" "
6	4 DEW	6	2 DEW	6	4 DEW
7	NO CONTACT	7	NO CONTACT	7	NO CONTACT
8	1 DEW	8	1 DEW	8	" "
9	2 DEW	9	2 DEW	9	" "
190 6/15	1 DEW	20	NO CONTACT	20	" "
191 6/15	NO CONTACT	1	NO CONTACT	1	" "
2	NO CONTACT	2	2 DEW	2	" "
3	NO CONTACT	3	3 DEW	3	DEW
4	NO CONTACT	4	1 DEW	4	NO CONTACT
5	NO CONTACT	5	NO CONTACT	5	1 DEW
6	NO CONTACT	6	" "	6	NO CONTACT
7	NO CONTACT	7	" "	7	" "
8	3 DEW	8	1 DEW	8	" "
9	1 DEW	9	NO CONTACT	9	" "
100 6/15	NO CONTACT	20	" "	20	1 DEW

R#5

Section: DL(A) OUTSIDE FENCE

Phase ONE

5-11/6-23-23

Grid Grid Grid

241	NO CONTACT	261	4	DEW	281	1	DEW
242	1 DEW	2	5	DEW	2		NO CONTACT
243	NO CONTACT	3	3	DEW	3	14	DEW
244	NO CONTACT	4	6	DEW	4	12	DEW
245	NO CONTACT	5	4	DEW	5	4	DEW
246	1 DEW	6	4	DEW	6	6	DEW
247	NO CONTACT	7	4	DEW	7	7	DEW
248	NO CONTACT	8	6	DEW	8	2	DEW
249	1 DEW	9	4	DEW	9	3	DEW
250	NO CONTACT	270	5	DEW	250	3	DEW
1	" "	1	6	DEW	281	1	DEW
2	" "	2	5	DEW	2		
3	" "	3	6	DEW	3		
4	" "	4	5	DEW	4		
5	" "	5	6	DEW	5		
256	" "	6	4	DEW	5		
6/12	NO CONTACT						
7	4 DEW	7	5	DEW	7		
6/12							
8	3 DEW	8	5	DEW	8		
9	4 DEW	9	4	DEW	9		
260	5 DEW	280	4	DEW	300		

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January 13, 1994

Summary of operations

April 15, 1993

Load out of all equipment from EHSI headquarters. Departed for Los Alamos New Mexico.

April 16, 17, and 18

Arrived Hilltop Motel Los Alamos New Mexico. Mr. Wharton, Mr. Knaup and Mr. Stephens arrived at the Motel.

April 19, 1993

Working on equipment and stowage problems. Met with Mr. Bowers recieved informal briefing, met all the players at the office. Went over the plans for the upcoming (3) day training evolution. Reported to the GET training center for the rest of the day in GET training.

April 20, 1993

Left the motel reported to the training center (bought donuts for the teachers) finished the course of instruction and all hands passed the test.

April 21, 1993

Mobilization day 3 went out to the old Pistol and rifle range to conduct practical refresher training on all the electronic equipment and check out on safety and riding of the ATV's, conducted PMS on the Generator, all hands read and signed the Health and Safety Manual. Personnel departed for the exchange at Kirkland AFB to pick up some supplies.

ENC 1

April 22, 1993

Maintenance and assignment of all equipment to all EHS personnel, final in brief and load out. Departed for the first SWMU at site 011-A. There will be a formal Health and Safety Brief and the HDT, Sheriffs office and Mr. J. Aldrich will be present. A UXO safety brief was given by Mr. AL Ebner Site Supervisor for EHSI to all hands involved, set up and tested all of the search equipment, after which survey lanes were layed to gain access to the clearance site boundary. A 10 foot lane was swept that took us up to the eastern fence line where lanes were ran from the north to the south at 10 foot intervals. Right off the start a couple of pieces of frag were located along with some tailfins and a PD fuze from a 60mm or 81mm mortar. A rotating band was found and believed to be from a 37mm round. The rest of the afternoon was spent sweeping, picking up scrap and fragmentation.

April 23, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, EHSI personnel continued setting search lanes north to south in 10 foot widths. Scrap and pieces of 60mm, 81,, small arms being picked up from the lanes most of the material is within 18 inches of the surface. Upon returning to the motel all equipment is checked out cleaned and prepared for the next days operations, a critique is held on the field work and any constructive changes are made.

April 24, 1993

This day Saturday will be used for more training and a look at the other sites. It is one of the posted Mobilization periods and will be used for same.

April 25, 1993

Sunday, RDO (Regular Day Off)

April 26, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, EHSI teams (1) ans (2) laid search lane (18 thru 30) and commenced searching same. conducted

additional training on the ATV's. S/S made run into town for maintenance and admin functions. K. Bowers and J. Aldrich made a site visit couldn't wait for return of the site supervisor but will return tomorrow. High powered shots were observed and work was stopped and personnel moved to a safe area, A. Ebner and R. Brown went up to the rifle range and found an ROTC group firing they were asked to stop while we cleared the area. OEW recovered this date was (9) 60mm tail fins, (53) pieces of large 60mm frag, (5) 81mm tail fins, (3) 60mm nose fuzes, and (7) pieces of 81mm frag.

April 27, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, Began survey of lanes 35 to 40. K. Bowers and J. Aldrich arrived at the work site. A walk around the perimeter fence as well as with-in the cleared areas inside the fence. Mr. Aldrich took pictures of the OEW that has been found to date. Gave K. Bowers some extra instruction on the ATV and went on a trip to look at the other sites. A lot of trash is showing up it looks like at one time there was a road through the middle of the range and it was used as a general dump site. OEW recovered today is (6) 60mm tail fins, (49) assorted frag, (12) 81mm tail fins, (1) pieces of various 81mm frag. (3) 60mm fuzes and (4) empty cartridges.

April 28, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment swept lanes 41 through 48, OEW dropping off and seem to be in the middle of a trash site, hot rocks are also abundant. Site supervisor made an equipment/supply run. Mr K. Bowers arrived with Mr. Amir Metry, a brief overview of the operation and how the locators worked was presented. Shots were heard and the range was checked by R. Brown, they were shooting high powered pistols on the pistol range. The site Supervisor ran a QA check on lanes 23, 21 and 45, all but one of the 17 contacts were rock formations and had been interagated during the sweep. OEW recovered was (6) 60mm tail fins, (46) pieces of 60mm frag, (8) 81mm tail fins, (9) pieces of 81mm frag, (2) empty cartridges and (1) 50cal and (1) 38cal. Stopped by the car wash and cleaned the trucks and ATV's.

April 29, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, sweeping continued from lane 49. The backhoe arrived was unloaded Al Ebner started working on the access road to try and straighten it out. J.R. Stallings conducted QA sweeps on lanes 6 and 21 other than small bits of wire the only contact was a small piece of a horseshoe. The area has been squared off by the search teams and we are laying new grids on the remaining section. After sweeping only (2) lanes a total of (54) contacts were excavated and all of them were frag from 60 and 81mm mortars. Road work has been completed and the backhoe has been moved to the pistol range. OEW recovered was (8) 60mm tail fins, (1) 60mm fuze, (32) pieces of 60mm frag, (5) 81mm tail fins, (3) pieces of 81mm frag, (4) expended bullets, (2) 50cal and (2) 30/30.

April 30, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, people setting up on the rifle range checked the trailer for security. Checked outside of the fence in a SW direction we have frag and fuzes out here, Mr. Wharton said to check on the other side of the road also. Decision has been made to go over to C-o-020 and start laying out lanes. Ebner meeting with the backhoe people to turn same in. K.Bowers came out to the site to talk about the work schedule, and going back into 0-011A. (11) lanes were cleared they were put down at an angle due to the rough terrain.

Sincerely

Charles E. Wharton, Sr.
President

6-3-93 CONT

1600 - WORK COMPLETE FOR THE DAY. AREA COVERED WAS APPROX 1.4 ACRES AND DEW RECOVERED INCLUDES 14-60mm TRAIL FINS, 34-60mm FRAG, 5-60mm FUSE, 4-81mm TRAIL FIN AND 5-81mm FRAG.

6-4-93

0600 - DEPART HOTEL FOR SITE 011 (C). HELD H&S BRIEFING AND COURT LANE SWEEPS AT THE AREA WE LEFT OFF ON 5-28.

1530 COMPLETE SURVEY OF SWIMM 011 (C). AREA COVERED WAS APPROX .8 ACRES WITH NO DEW RECOVERED

1600 - EHS PERSONNEL DEPART SITE FOR HOTEL.

JIM ALDRICH AND I. J. WONG (RUEPHEX) ARRIVE FOR SITE SURVEY AND BRIEFING. A. EBNER (EHS) HAVE BRIEFING

6-5-93

0700 - DEPART HOTEL FOUR SITE C-0-020. HELD H & S BRIEFING AND BEGAN QA (INTERGRATION OF GEORHEX CONTACT CHECK'S. THERE WERE 11 CONTACTS AT THIS TIME, TWO OF WHICH WERE SCUMED LEFT ON THE SURFACE.

GEORHEX HAD A SMALL AREA LEFT TO COVER WHILE WE WERE CHECKING OTHER CONTACTS. IN THIS AREA THEY MADE ONE MORE CONTACT WHICH MADE THE COUNT AT 12.

ALL CONTACTS WERE EITHER ROCK OR GRAVEL, EXCEPT FOR THE TWO SCUMED CONTACTS ON SURFACE, AND EHS EXCAVATED. THESE ROCKS OR DUG TO A DEPTH OF 3' IN THE ROCK AND GRAVEL. NO DEW/UXO OR OTHER HAZARDOUS MATERIAL WAS FOUND.

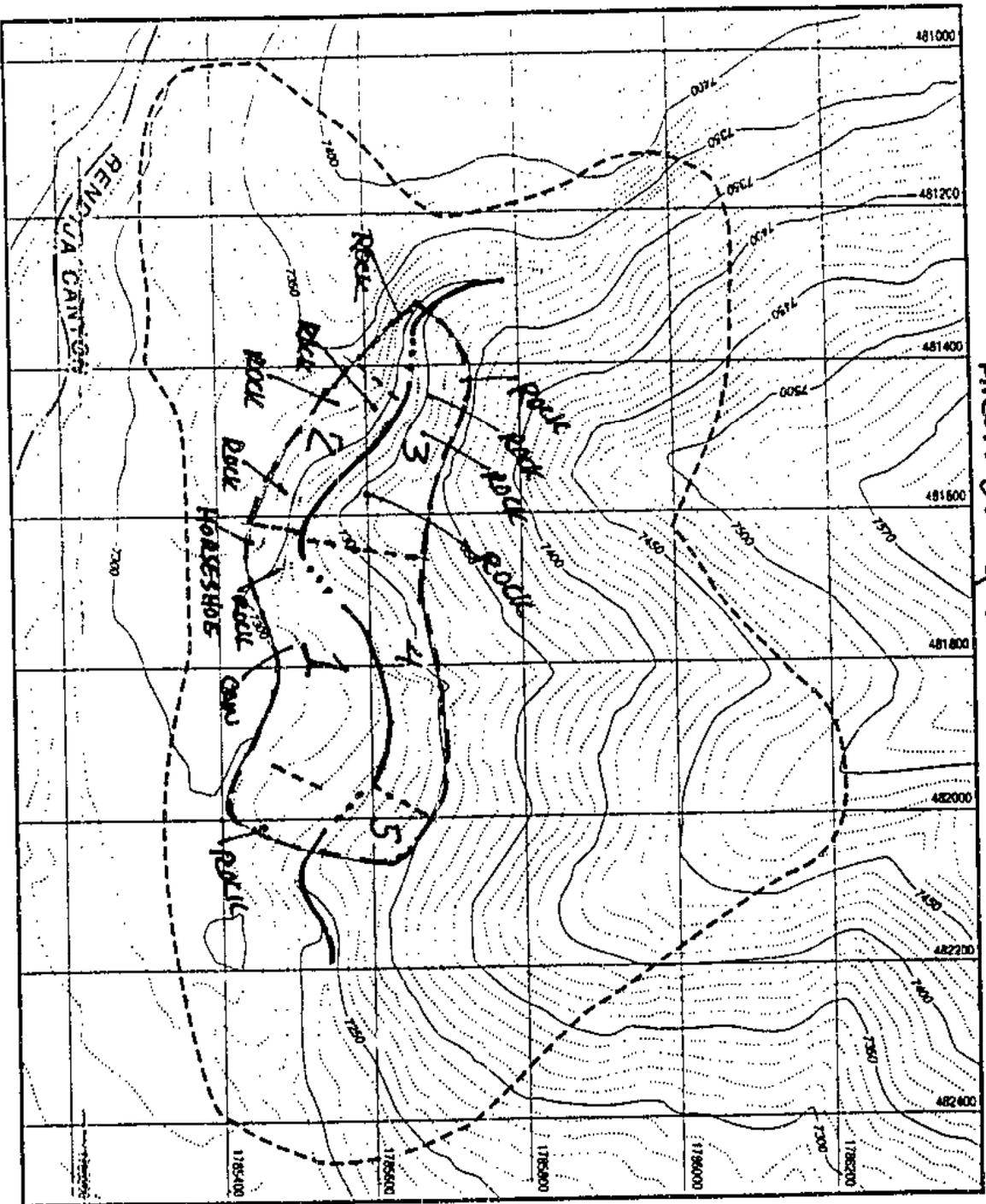
1400 - SURVEY/QA OF SITE C-0-020 BOTH PHASE ONE AND TWO ARE NOW COMPLETE

1400 - EHS PERSONNEL DEPART SITE AND RETURN TO TOWN/HOTEL FOR MAINTNANCE OF VEHICLES AND EQUIPMENT

1600 - COMPLETE WORK FOR THE DAY

6-5-93

AREA OF QA CONTACTS AND FINDINGS



ATTACHMENT C. Site map for Area of Concern C-0-020.

Not to scale
Distances uncertain

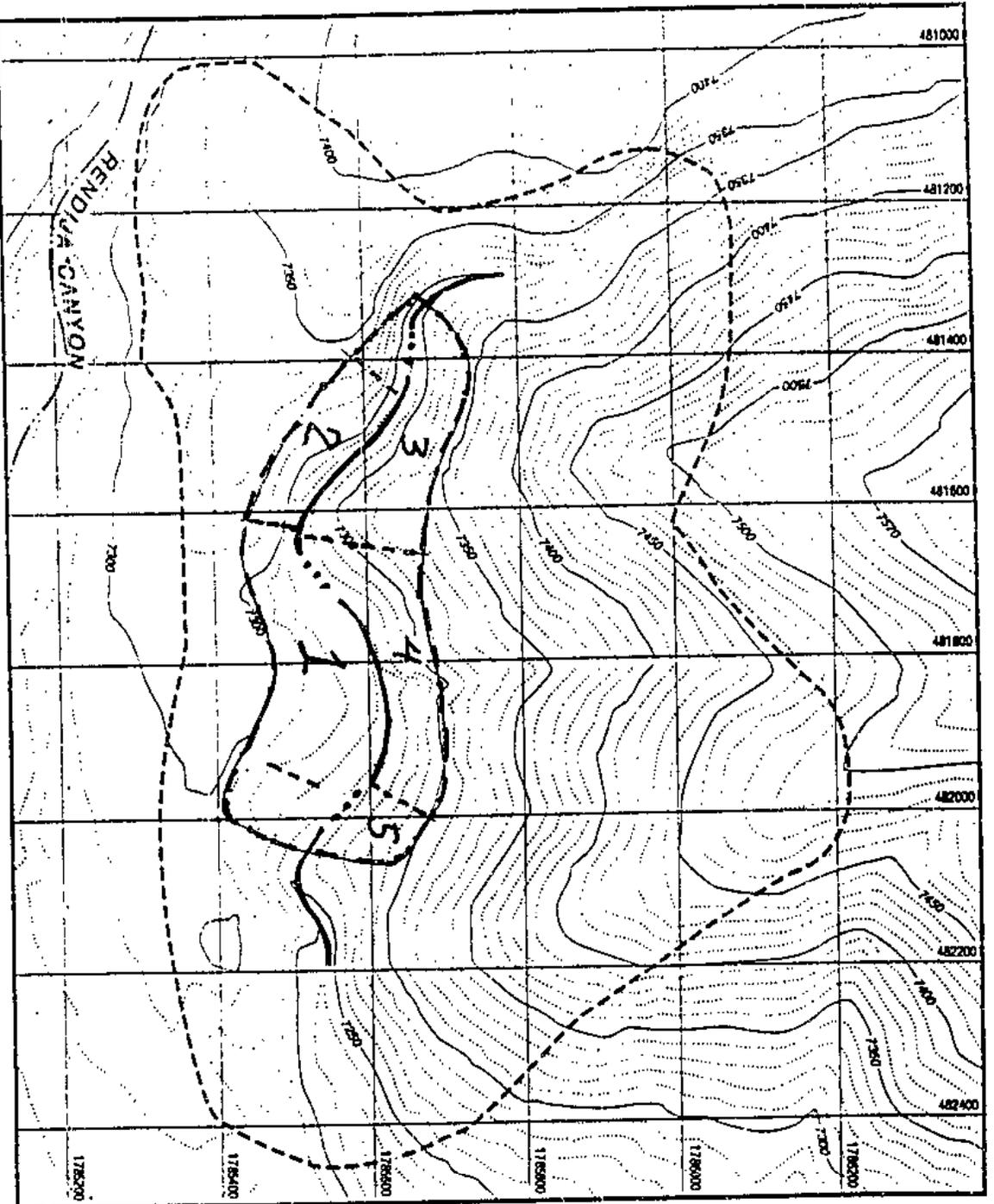
Appendix A same map size
of AOC 0-020

AOC boundary
 Infiltrant stream
 Contour interval 10 ft
 New Mexico State
 Plane Coordinates
 0 50 100 150 ft
 Source: TMAD G100916
 12/583
 Prepared by: A.M. Dyeck
 CAD/COPY, 12/790
 Rev. 0



- #1 / 4-30-93
 - #2 / 5-2-93
 - #3 / 5-4-93
 - #4 / 5-5-93
 - #5 / 5-6-93
- OP 6-5-93
 check

1/24/83



ATTACHMENT C. Site map for Area of Concern C-0-020.

Map from Tech. Report 1983-01

Appendix A Area Maps Site C of AOC 20-0-020

--- AOC boundary
 - - - Intermittent stream
 Contour interval 10 ft
 Mean Mercurio Scale
 Plane Coordinates
 0 50 100 150 ft
 Scale
 Source: FIMAD G106916
 1/2/50
 Redrawn by: AM Dyon
 Orthography: 1/2/83
 Rev 0



- #1 / 4-30-43
- #2 / 5-3-43
- #3 / 5-4-43
- #4 / 5-5-43
- #5 / 5-6-43

6-11-93 Permit

1600 - WORK COMPLETE FOR
THE DAY. NO OEW/UXO FOUND AT
SITE ON (C) AT THIS TIME.

6-12-93

RDO

6-13-93

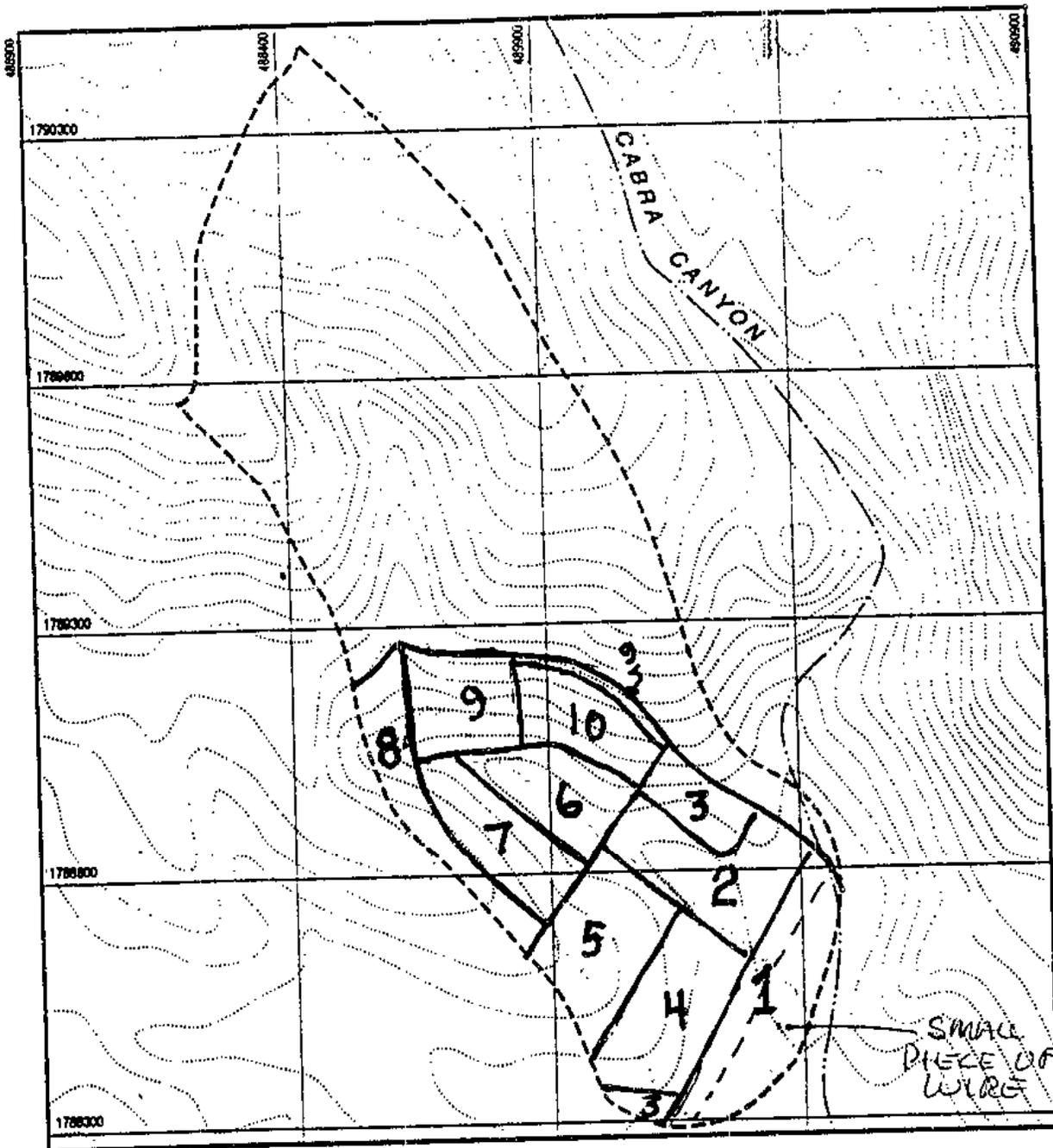
RDO

6-14-93

0600 - DEPART HOTEL FOR SITE
ON (A). HELD HEALTH & SAFETY
BRIEFING AND CONT LAINE SWEEP
CONT WORKING AS THE
SOUTH WEST AREA AS PER
DATE ON MAP "A"

1800 - A. EBNER CHECKED
AND CLEARED THE ROAD AND
AREA WHICH WOULD SERVE AS
A NEW STAGING AREA DUE TO
THE FACT THAT THE SWAMP
MAY ENCROACH ON THE PRESENT
STAGING AREA. BOUNDARY WAS
FLAGGED.

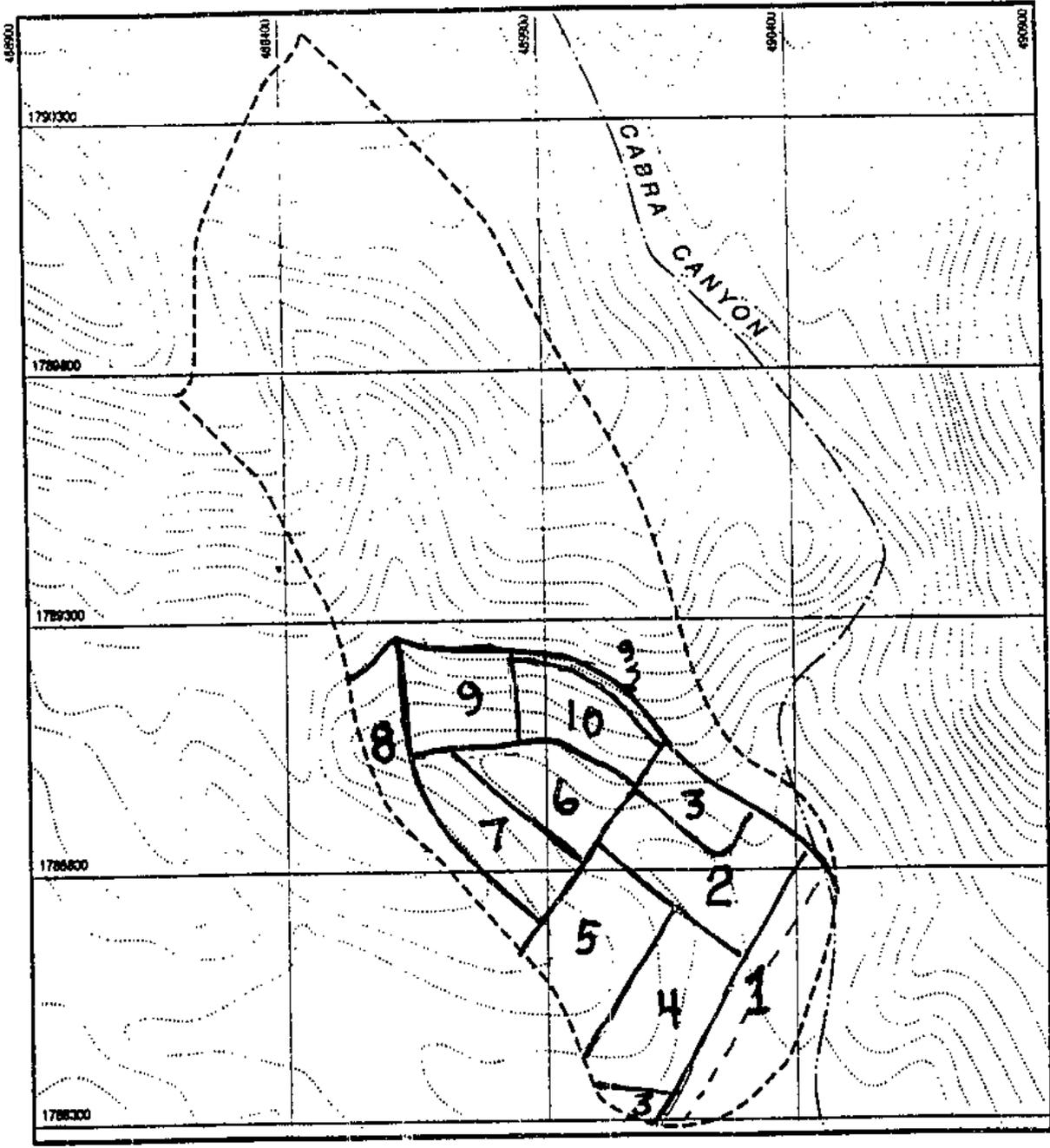
C
0144-100-051-014
510-400-4100



----- SWMU boundary	Source: FMAD G100814 1/25/93
- - - - - Intermittent stream	Redrawn by: A. Kron cARTography, 1/27/93
Contour interval 10 ft (?) New Mexico State Plane Coordinates	Rev. 0 0 100 200 ft

AREA WHERE EHS HAS CHECKED GEOPHYS QA MARKERS
METAL CONTACT

ATTACHMENT F. Site map for SWMU 0-011(c).



-----	Source: FIMAD G100914
SWMU boundary	1/25/80
-----	Redrawn by: A. Kron
Intermittent stream	CARTography, 1/27/80
-----	Rev. 0
Contour interval 10 ft (?)	0 100 200 ft
New Mexico State	
Plane Coordinates	

ATTACHMENT F. Site map for SWMU 0-011(c).

1781300
 1781800
 1782300
 1782800
 1783300

R#8

1230-1300-1400-1500

6-23-93 Cont.

1230 - QA CHECK COMPLETE.
CHECKED 16 MARKED CONTACTS
AND FOUND PIECES OF CANS AND
WIRE. MOST OF THESE CONTACTS
WERE AROUND AN OLD WELL
USED CAMPFIRE SITE WHERE
APPROX 25 OTHER CONTACTS
HAD BEEN ALREADY REMOVED.
THIS AREA WAS KNOWN TO BE
HEAVY WITH CONTACTS ALMOST TO
THE POINT OF BEING A DUMP.
THIS INFORMATION WAS PASSED ON
TO THE GEOPHYS TEAM SO THAT
THEY WOULD KNOW AND BE AWARE
OF IT. SWMU 011 (C) IS NOW
COMPLETE OF ALL SWEEPS BY
BOTH EHSI AND GEOPHYS.

1300 - BORKE FOR LUNCH AND
TO CHECK & CLEAN EQUIPMENT.

1400 - RETURNED TO SWMU
011 (A) TO CONT QA SWEEPS OF
GEOPHYS MARKED CONTACTS.

1400 - A. EBNER/J.R. STALLINGS
DEPART FOR ALBUQUERQUE TO
RETURN AUIS RENTAL VEHICLE AND
PICK UP THE NEW RENTAL FROM

6-24-93 CONT.

AREA AT THE BOTTOM OF THE CANYON IS CLEAR AND FAIRLY FLAT BUT STEEP, SO WE CAN MAKE BETTER TIME HERE. AND WILL HAVE TO SLOW DOWN AS WE GET FURTHER UP THE HILL.

1530 - COMPLETE WORK ON THE CANYON FOR THE DAY, RETURN TO FIELD TRAILER TO PARK UP EQUIPMENT AND LOAD ATV'S.

1600 - RETURN TO HOTEL. AREA COVERED WAS APPROX 1.5 ACRES AND THERE WAS NO OEW/UXO FOUND.

6-25-93

0600 - DEPART HOTEL FOR SWML-01(E). HELD HEALTH AND SAFETY BRIEFING. SET UP EQUIPMENT AND BEGAN CLEARING LANES. WORKING ON EAST SIDE OF CANYON, AND DUE TO THE TERRAIN, THE LANES ARE VARIED IN LENGTH AND DIRECTION. IT WILL BE VERY HARD TO KEEP TRACK OF ACTUAL LANES.

6-25-93 Cont.

I WILL SHOW THEM AS SECTIONS AND WILL MARK ON THE MAP ANY AREAS OF DEW/UXO CONCENTRATION

1600 - COMPLETE WORK FOR THE DAY. AREA COVERED WAS APPROX 1.2 ACRES WITH NO DEW/UXO FOUND.

6-26-93

RDO SAT.

6-27-93

RDO SUN.

6-28-93

0600 - DEPART HOTEL FOR SITE 011(E). HELD HEALTH AND SAFETY BRIEFING AND CONT ON LANE SWEEPS.

1600 - COMPLETE WORK FOR THE DAY. AREA COVERED WAS APPROX 1 ACRE WITH NO DEW/UXO FOUND.

pg # 12

6-29-93

0600 - DEPART HOTEL FOR SITE OIL(E). HELD HEALTH AND SAFETY BRIEFING. SET UP EQUIP AND CON'T LAWE SWEEPS ON EAST SIDE OF CANYON. ROCKS AND GRAVEL ARE GETTING LOOSE SO WE ARE STARTING TO SLOW DOWN.

1600 - COMPLETE WORK FOR THE DAY. WE WILL MOVE TO THE WEST SIDE OF CANYON ON 6-30-93. AREA COVERED TODAY WAS APPROX 1 ACRE WITH NO OEW/UXO FOUND

6-30-93

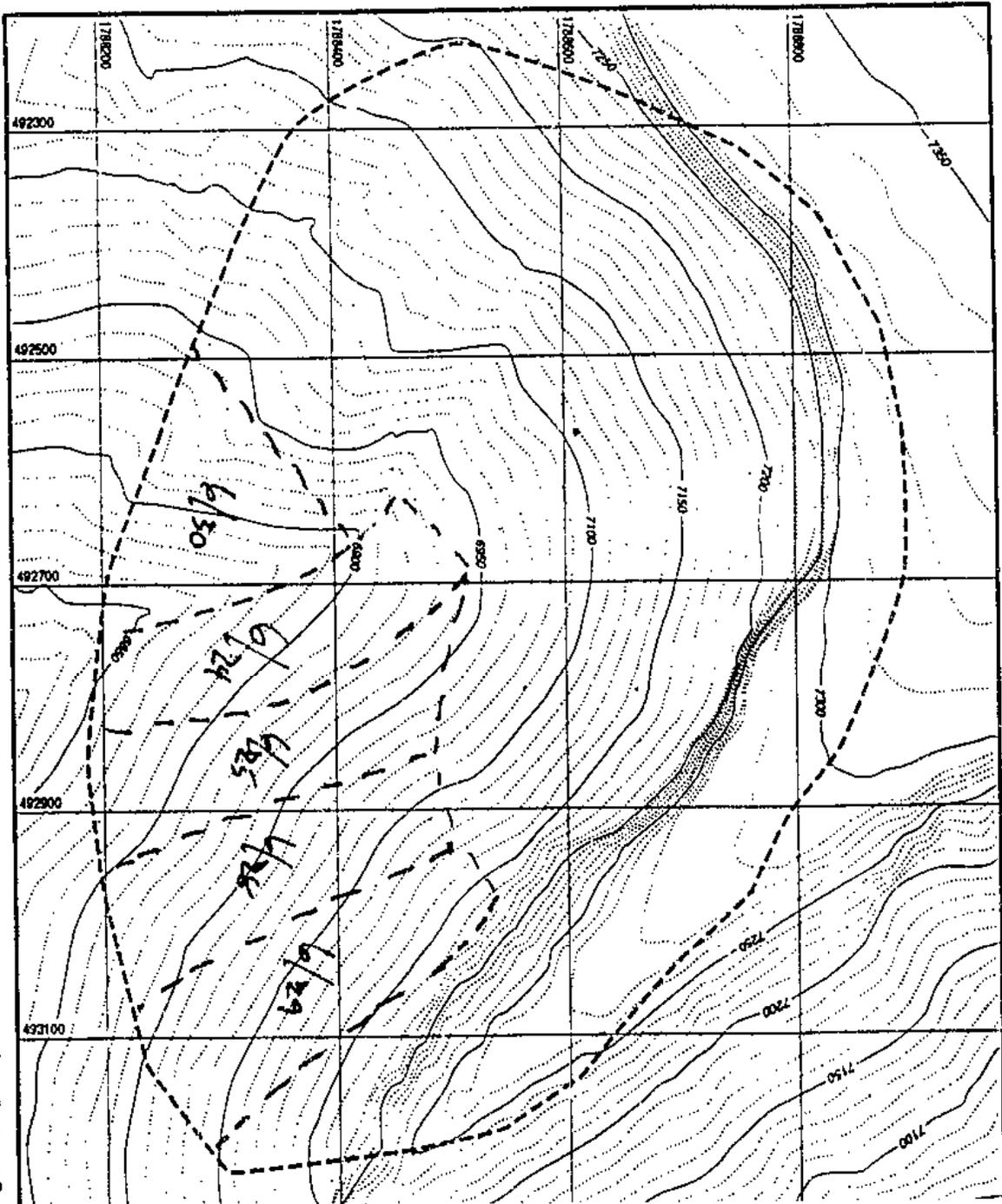
0600 - DEPART HOTEL FOR SITE OIL(E). HELD HEALTH AND SAFETY BRIEFING. SET UP EQUIP. AND CON'T LAWE SWEEPS. MOVED TO WEST SIDE OF CANYON FOR LAWE'S. THIS AREA IS NOT TOO BAD BUT WILL BE THE LAST OF THE CLEAR AREAS WHERE THE MOVEMENT WILL BE EASY.

PG # 13

6-30-93 CONT.

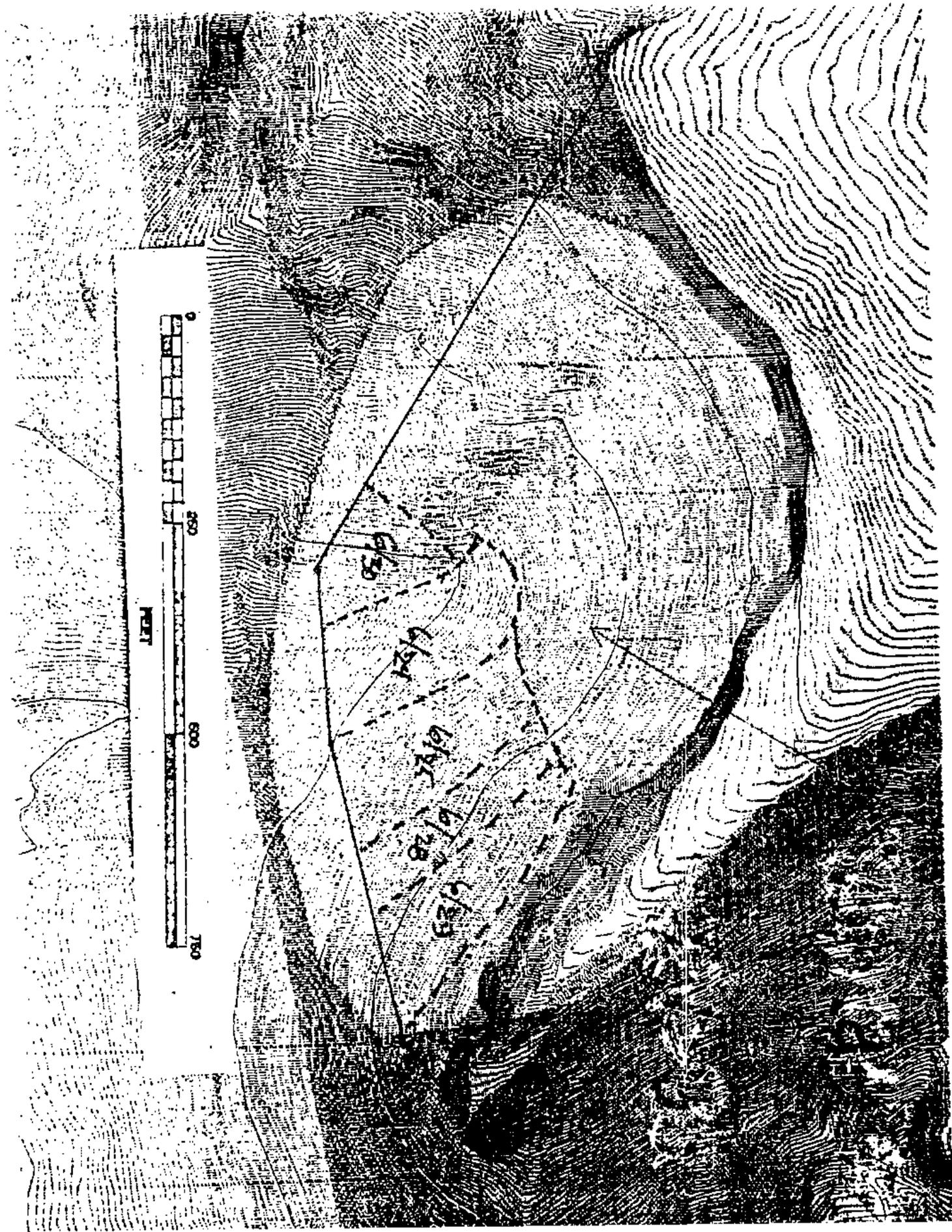
1600 - COMPLETE WORK FOR THE
DAY. AREA COVERED WAS APPROX
.8 ACRE. NO UXO/OEW FOUND

1788000 4920000



ATTACHMENT E Site map for SWAU 0-011(b, e).

6-30-98
THIS MAP IS NOT A
BUT WILL DO UNTIL I
WORK ON IT



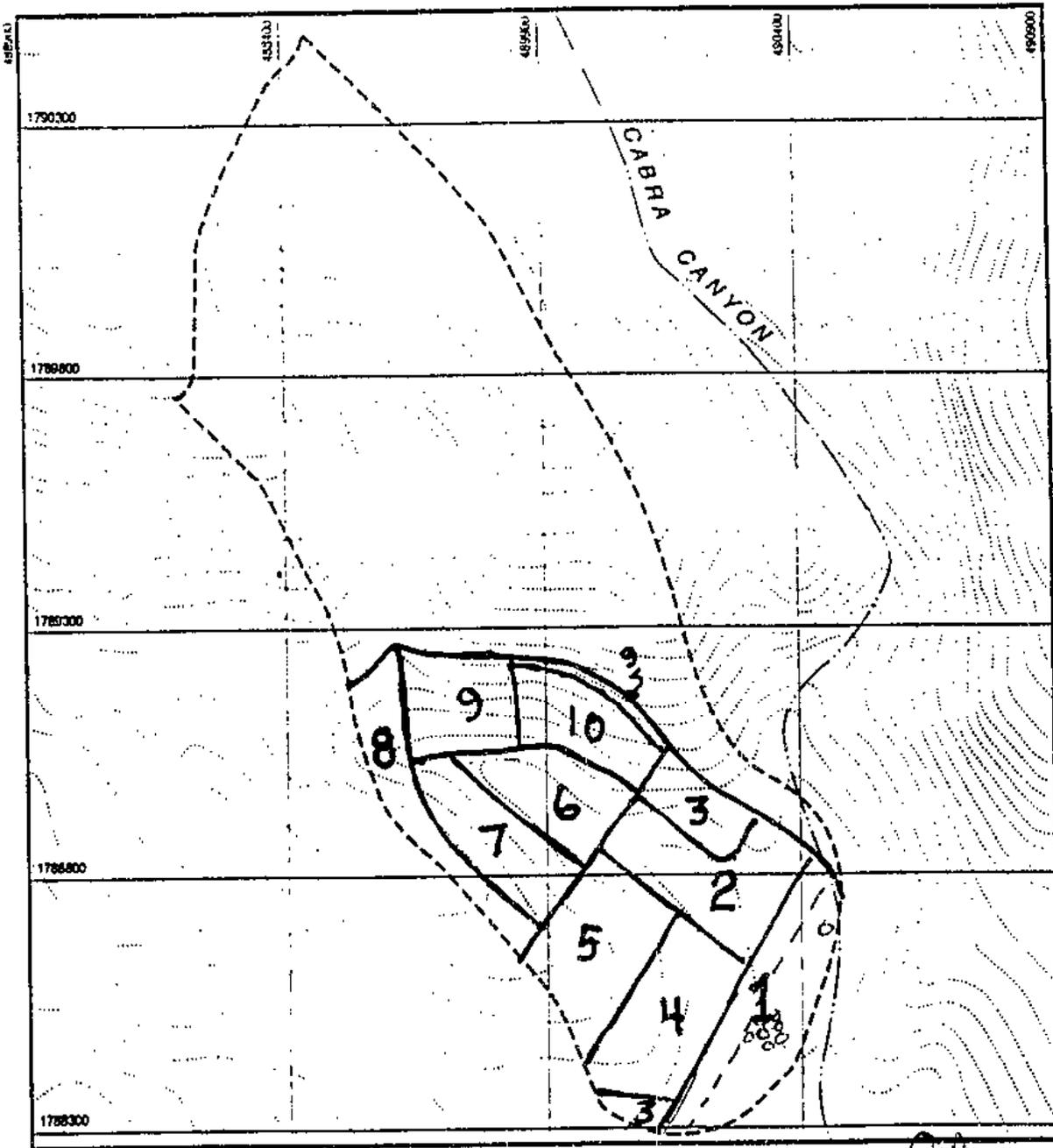
6/30

6/24

6/19

6/18

6/19



SWMU 0-011(c)

<p>--- SWMU boundary</p> <p>--- Intermittent stream</p> <p>Contour interval 10 ft (?)</p> <p>New Mexico State Plane Coordinates</p>	<p>Source: FIMAD 0100914</p> <p>1/25/93</p> <p>Redrawn by: A. Kron</p> <p>CARTography, 1/27/93</p> <p>Rev. 0</p> <p>0 100 200 ft</p>
---	--

QA
 FOUND BITS OF
 WIRE AND CANS
 NEAR OLD CAMPFIRE

ATTACHMENT F. Site map for SWMU 0-011(c).

Section C-111.5

Phase 115E

5-10-93 / 6-5-93

Grid Grid Grid

1	5-10-93	21		41	
2		22		42	NO CONTACT 5-14-93
3		23		43	5-14-93 NO CONTACT
4		24		44	
5		25		45	
6	5-6-93	26		46	5-14-93 NO CONTACT
7	5-7-93	27	NO CONTACT 5-8-93	47	5-14-93 NO CONTACT
8		28	5-14-93 NO CONTACT	48	
9		29		49	
10		30		50	
11		31		51	
12		32		52	
13		33		53	
14	5-7-93	34		54	
15	5-5-93 NO CONTACT	35		55	
16		36		56	
17		37		57	
18		38		58	
19		39		59	
20		40		60	5-14-93 NO CONTACT

NO CONTACT

Section A-11101

Phase LIVE

5-6-93 / 6-5-93

Grid Grid Grid

121	5-20-93 NO CONTACT	141		1	6-5-93 NO CONTACT
122	-	142		2	
123		143		3	
124		144		4	
125		145		5	
126		146		6	
127		147		7	
128		148		8	
129	5-22-93 NO CONTACT	149	5-26-93 NO CONTACT	9	
130	5-28-93 NO CONTACT	150	6-5-93 NO CONTACT	0	
131		151		1	
132		152		2	
133		153		3	
134		154		4	
135		155		5	
136		156		6	
137		157		7	
138		158		8	
139		159		9	
140		160		0	

September 8, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued to QA the impact area, surveyed 14 lanes recovered (2) 37mm AP rounds and (5) pieces of frag.

September 9, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Due to the fact that Geophex would be working in the canyon ERM asked us not to work on the hill as rocks would fall on them. Proceeded to site 011-A and checked 23 contacts, (4) small pieces of frag and a can, as of today SWMU 011-A is completed.

September 10, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps in 011-A swept 10 lanes recovered (1) 37mm AP round and (3) pieces of frag.

September 11, 12, 1993

RDO

September 13, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA lane completed 7 lanes recovered 5 small pieces of frag. Our directions are to continue QA sweeps in the impact area until we find no more frag.

September 14, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps cleared (8) lanes recovered (3) pieces of frag and (2) expended 50 cal rounds.

September 15, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps of the impact area, NO UXO/OEW recovered.

September 16, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts cleared (23) flags (7) small pieces of frag and (3) 37mm AP rounds kicked out during the shot on 8/23.

September 17, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex flags (7) flags checked (1) small frag the rest were rocks.

September 18, 19, 1993

RDO

September 20, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts found during the QA sweep (14) flags checked (3) frag and (2) 37mm rounds (1) we had already found and (1) buried inside of a rock.

September 21, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. No QA flag today so we did random lanes in the impact area, no contacts found.

September 22, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts checked (7) contacts (2) frag and (1) 37mm again buried inside of a rock.

September 23, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts, no UXO/OEW found, packing up some of the equipment as we will be completed friday and demobilize on saturday.

004-1000015-1-20

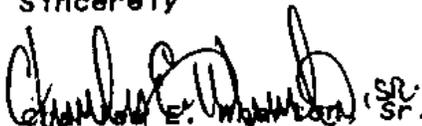
September 24, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts, (7) flags checked (2) frag the rest were rock. HDT personnel arrived to assist with the demolition shot. There was (10) 37mm rounds to dispose of, this will be the final shot. The shot was rigged non-electric the area cleared and the command to fire given. The area was checked the frag recovered and all equipment stowed. EHS personnel returned to the hotel to finish packing out.

September 25, 1993

Demobilizing and packing out all equipment. One half day was used to pack out all of the equipment, I would like to thank everyone involved with this project for all the help and support that was provided to EHSI personnel during this project. Without this help the project certainly would have taken longer, it was a pleasure to see the Project Manager (LANL) on site at critical times to adjust the clearance requirements. At no time was there any question as to our tasking requirements. It was a dangerous and difficult task that was completed without incident/accident. The support HDT provided was invaluable to the entire project. The cost would have been higher, and storage and transportation of the required explosives would have been an unneeded nightmare. The personnel at contracts (Ms Christine Othart) has been instrumental in the contract negotiations and timely return of the invoices. If we may be of any service in our fields of expertise we would be glad to return, again Thank You

Sincerely


Charles E. Wharton Sr.
President

**ENVIRONMENTAL HAZARDS SPECIALISTS
INTERNATIONAL, INC.**

Route 1, Box 232
Belvidere, North Carolina 27919
Phone (919) 297-2991
FAX (919) 297-2992

January 13, 1994

Summary of operations

April 15, 1993

Load out of all equipment from EHSI headquarters. Departed for Los Alamos New Mexico.

April 16, 17, and 18

Arrived Hilltop Motel Los Alamos New Mexico. Mr. Wharton, Mr. Knaup and Mr. Stephens arrived at the Motel.

April 19, 1993

Working on equipment and stowage problems. Met with Mr. Bowers recieved informal briefing, met all the players at the office. Went over the plans for the upcoming (3) day training evolution. Reported to the GET training center for the rest of the day in GET training.

April 20, 1993

Left the motel reported to the training center (bought donuts for the teachers) finished the course of instruction and all hands passed the test.

April 21, 1993

Mobilization day 3 went out to the old Pistol and rifle range to conduct practical refresher training on all the electronic equipment and check out on safety and riding of the ATV's, conducted PMS on the Generator, all hands read and signed the Health and Safety Manual. Personnel departed for the exchange at Kirkland AFB to pick up some supplies.

April 22, 1993

Maintenance and assignment of all equipment to all EHS personnel, final in brief and load out. Departed for the first SWMU at site 011-A. There will be a formal Health and Safety Brief and the HDT, Sheriffs office and Mr. J. Aldrich will be present. A UXO safety brief was given by Mr. AL Ebner Site Supervisor for EHSI to all hands involved, set up and tested all of the search equipment, after which survey lanes were layed to gain access to the clearance site boundary. A 10 foot lane was swept that took us up to the eastern fence line where lanes were ran from the north to the south at 10 foot intervals. Right off the start a couple of pieces of frag were located along with some tailfins and a PD fuze from a 60mm or 81mm mortar. A rotating band was found and believed to be from a 37mm round. The rest of the afternoon was spent sweeping, picking up scrap and fragmentation.

April 23, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, EHSI personnel continued setting search lanes north to south in 10 foot widths. Scrap and pieces of 60mm, 81,, small arms being picked up from the lanes most of the material is within 18 inches of the surface. Upon returning to the motel all equipment is checked out cleaned and prepared for the next days operations, a critique is held on the field work and any constructive changes are made.

April 24, 1993

This day Saturday will be used for more training and a look at the other sites. It is one of the posted Mobilization periods and will be used for same.

April 25, 1993

Sunday, RDO (Regular Day Off)

April 26, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, EHSI teams (1) ans (2) laid search lane (18 thru 30) and commenced searching same. conducted

additional training on the ATV's. S/S made run into town for maintenance and admin functions. K. Bowers and J. Aldrich made a site visit couldn't wait for return of the site supervisor but will return tomorrow. High powered shots were observed and work was stopped and personnel moved to a safe area, A. Ebner and R. Brown went up to the rifle range and found an ROTC group firing they were asked to stop while we cleared the area. OEW recovered this date was (9) 60mm tail fins, (53) pieces of large 60mm frag, (5) 81mm tail fins, (3) 60mm nose fuzes, and (7) pieces of 81mm frag.

April 27, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, Began survey of lanes 35 to 40. K. Bowers and J. Aldrich arrived at the work site. A walk around the perimeter fence as well as with-in the cleared areas inside the fence. Mr. Aldrich took pictures of the OEW that has been found to date. Gave K. Bowers some extra instruction on the ATV and went on a trip to look at the other sites. A lot of trash is showing up it looks like at one time there was a road through the middle of the range and it was used as a general dump site. OEW recovered today is (6) 60mm tail fins, (49) assorted frag, (12) 81mm tail fins, (1) pieces of various 81mm frag. (3) 60mm fuzes and (4) empty cartridges.

April 28, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment swept lanes 41 through 48, OEW dropping off and seem to be in the middle of a trash site, hot rocks are also abundant. Site supervisor made an equipment/supply run. Mr K. Bowers arrived with Mr. Amir Metry, a brief overview of the operation and how the locators worked was presented. Shots were heard and the range was checked by R. Brown, they were shooting high powered pistols on the pistol range. The site Supervisor ran a QA check on lanes 23, 21 and 45, all but one of the 17 contacts were rock formations and had been interagated during the sweep. OEW recovered was (6) 60mm tail fins, (46) pieces of 60mm frag, (8) 81mm tail fins, (9) pieces of 81mm frag, (2) empty cartridges and (1) 50cal and (1) 38cal. Stopped by the car wash and cleaned the trucks and ATV's.

April 29, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, sweeping continued from lane 49. The backhoe arrived was unloaded Al Ebner started working on the access road to try and straighten it out. J.R. Stallings conducted QA sweeps on lanes 6 and 21 other than small bits of wire the only contact was a small piece of a horseshoe. The area has been squared off by the search teams and we are laying new grids on the remaining section. After sweeping only (2) lanes a total of (54) contacts were excavated and all of them were frag from 60 and 81mm mortars. Road work has been completed and the backhoe has been moved to the pistol range. OEW recovered was (8) 60mm tail fins, (1) 60mm fuze, (32) pieces of 60mm frag, (5) 81mm tail fins, (3) pieces of 81mm frag, (4) expended bullets, (2) 50cal and (2) 30/30.

April 30, 1993

Departed the motel for the work site ERM FOL R. Brown held a briefing, ERM's CIH held a Health and Safety Brief, EHS site safety J.R. Stallings presented a UXO safety brief. Set up and tested all of the search equipment, people setting up on the rifle range checked the trailer for security. Checked outside of the fence in a SW direction we have frag and fuzes out here, Mr. Wharton said to check on the other side of the road also. Decision has been made to go over to C-0-020 and start laying out lanes. Ebner meeting with the backhoe people to turn same in. K.Bowers came out to the site to talk about the work schedule, and going back into 0-011A. (11) lanes were cleared they were put down at an angle due to the rough terrain.

Sincerely

Charles E. Wharton, Sr.
President

**ENVIRONMENTAL HAZARDS SPECIALISTS
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January 13, 1994

Summary of operations

May 1, 1993

Departed the motel for the work site at C-0-020, the weather is raining, we will probably not work in this section today. Discussed the options with R. Brown and moved over to 0-011(a) the terrain is flatter. Conducted a UXO safety brief and commenced field activities. Rain and snow started again and operations were secured, completed 11 lanes OEW recovered was (8) 60mm tail fins, (5) 81mm tail fins, (23) 60mm frag, (11) 81mm frag and (1) 60mm fuze, we are finding more frag along the fence and outside of the fence, the search area will expand at 011-(a). EHSI picked up a Ford Bronco to use back in the tight areas.

May 2, 1993

Sunday RDO

May 3, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and commenced clearing lanes. Mr. Bowers arrived with some personnel from SURV-TECH who will be doing the surveying. Gave them a tour of the area, EHS will sweep and mark a 10 to 12 foot area around the entire site for access for the surveyors. Met with the driver from modular trailer, he is bringing one trailer and moving the one from 011(a) closer to another site. Due to the large truck he was unable to move the trailer (relocate) he made it about half way. Completed the boundary survey and 23 lanes to date no sign of any UXO/OEW.

May 4, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and commenced clearing lanes. Sweeping lanes in section #3 as per enclosed map. All lanes today

started on the south side of the stream and went around the west boundary to the north side of the stream. Completed (11) lanes on the south side and (30) lanes on the north side, the lanes are short 75 to 100 feet long, no UXO\OEW or trash located.

May 5, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and commenced clearing lanes. Swept (45) short 75 to 100 feet lanes, no UXO\OEW recovered. Raining late in the day.

May 6, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and continued clearing lanes. SURV-TEK will finish with the boundaries within the next hour or so. C-0-020 has been completed with-in the new boundaries that were set. We are moving to SWMU 0--211(e) and will do a walk over the area to come up with a plan for the clearance lanes. R. Brown called us on the radio and informed us we did not have clearance from the Forest Service to do this area yet. Met with Mr. J. Aldrich at the base of the search area, we are to move over to SWMU 0-011(c), J. Aldrich and Brent Russell from ERM\Golder will go over and flag the search boundaries. EHSI cleared (11) lanes, all that was found were a mix of 60\40 metal cans and trash the rest was hot rocks. During the survey of 0-011(e) many pieces of frag and live 37mm rounds were seen, on top of the bluff was 50 cal rounds and frag. We will recommend checking the top.

May 7, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes, A. Ebner performed QA\QC runs on lane #4, (2) hot rocks and a small piece of aluminum can found. Ebner and Thompson departed for the site trailer to assist the contractor move the trailer to its new location. All contacts this day were rocks, cans and wire, the trailer has been relocated.

May 8, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes, lanes are marked as section #2 on the map. Stallins departed for Santa Fe to return equipment to the rental agency. Twice during the day we stopped work because of heavy rain and lightning. We cleared another 1.3 acres no UXO\OEW found just more rocks and trash.

May 9, 1993

Sunday, RDO

May 10, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief, moved to this site to check the area outside of the fence boundaries to see how far we will clear. We have about three fourths of an acre left inside the fenced boundaries. Frank Pierce arrived from HDT-EMO to discuss the demolition support for the 37mm canyon site. All procedures were discussed, we will be using our SOP as it is the same as theirs. We will use electric and non-electric with C-4. UXO\OEW removed today was (7) 60mm tail fins, (43) pieces of 60mm frag, (2) 60mm fuzes, (9) 81mm tail fins, (6) pieces of 81mm frag. Slow going because of small metal and fence staples. A. Ebner conducted QA\QC on lanes #5 and #11. There are 3 lanes left inside the fence line. When GEOPHEX does this site we are going to have quite a few white flags, as there system finds anything ferrous but not non-ferrous.

May 11, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief, moved to this site to check the area outside of the fence boundaries to see how far we will clear. EHSI Team #2 working inside to finish that section. Team #1 moved to the outside and laid out (2) long search lanes, Team #2 completed inside the fence line. The long search lanes run from east to west, (3) other lanes run from south to north. OEW contamination runs approximately to the west another 550 feet and to the north approximately 270 feet. It looks like the target area was outside of the fenced boundaries. OEW removed was (42) 60mm tail fins, (68) pieces of 60mm frag, (3) 60mm fuzes, (5) 81mm tail fins and (6) pieces of 81mm frag. (note) the access road could very well be in the real impact zone.

May 12, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes west of the fenced area, Ebner conducted random sweeps as far as 600 feet to the west and 450 feet to the south on the south side of the road. The area is covered with 60mm, 81mm frag, fuzes and tail fins this looks like it is the target area for this SWMU. We marked and measured

the outside area and it adds another 11 acres to this SWMU. The amount of UXO\OEW removed today was over 300 pieces. Very little trash or hot rocks were found. OEW recovered was (29) 60mm tail fins, (16) 60mm fuzes, (220) pieces of 60mm frag, (22) 81mm tail fins, and (25) pieces of 81mm frag.

May 13, 1992

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes west of the fenced area, work was stopped late in the afternoon due to rain, hail and lighting storms. Returned to the motel and conducted PMS on all of the equipment. OEW removed today was (13) 60mm tail fins, (11) 60mm fuzes, 101 pieces of 60mm frag, (3) 81mm tail fins, (3) pieces of 81mm frag it was slow going today because of the large amount of contacts. A majority of the small ferrous contacts are from barbed wire and fence staples that are corroding into small pieces.

May 14, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes in section #3 as shown on map. J. Aldrich arrived on site and was briefed, B. Russell arrived and joined the brief. Both departed later, area covered was approximately 1.2 acres no OEW\UXO was recovered.

May 15, 1993

Departed the motel early for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes, the rifle range is closed for the weekend so we figured we better use the time to continue this site. Worked most of the day but kept getting chased off the site with rain, hail and lighting. OEW recovered was (7) 60mm tail fins, (55) pieces of 60mm frag, (4) 60mm fuzes and (1) 81mm tail fin.

May 16, 1993

Departed the motel early for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes, Ebner performed QC sweeps on lanes 31 and 34, no contacts except for small surface debris which fell off of the subsurface material that was removed. Moved from this site at noon because the rifle range opened up again. Installed tie downs on the site trailer. Conducted PMS on the equipment and vehicles. OEW included (1) 60mm tail fin, (35) pieces of 60mm frag, (2) 81mm tail fins, (15) pieces of 81mm frag, and various small arms.

May 17, 1993

RDO

May 18, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes, raining off and on we are working between the rain and lighting. When it stops we start, clearing lanes in section 4. J. Aldrich arrived with (5) VIPS for a brief and tour of the area. No OEW\UXO located.

May 19, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes cleared 1.6 acres today, no OEW\UXO.

May 20, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes stopped and started a few times today because of the lighting and rain cleared .8 acres today, no OEW\UXO.

May 21, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes, J. Aldrich and R. Charles came out for an inspection of 37mm canyon. We climbed to the top (Mesa) and then down along the base of the cliff. Size of the area and scope of work is OK with Mr. Aldrich. Cleared .7 acres low output due to the size and slope of the hills.

May 22, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes, set up the new field antenna at the trailer site, we have communications every where. We are going to leave the antenna in place but continue to take the radio and support equipment in.

May 23, 1993

RDO

May 24, 1993

Departed the motel early for the work site at C-0-011(a), held a site safety and UXO safety brief and continued clearing lanes, working on 011(a) range is closed Monday thru Thursday. B. Russell brought out the crew from Geophex, gave them a brief and introduction on the sites. Rain and lightning keeps chasing us off the mountain, cleared approximately 1 acre, OEW recovered was (3) 60mm tail fins, (25) pieces of 60mm frag, 48 pieces of 81mm frag and various small arms ammunition.

May 25, 1993

Departed the motel early for the work site at C-0-011(a), held a site safety and UXO safety brief and continued clearing lanes, held general training for the teams, on proper use of their compasses during UXO\OEW sweeps. team #2 working the north cliff boundary, locating 81mm frag and tail fins. The map shows the new boundaries. We will recommend that this added area be shown on future maps. (C-MAP) escorted the survey crew into the area next to 37mm canyon to set up transits. Completed survey of the north boundary, Team 1 swept (1) acre OEW removed (4) pieces of 60mm frag.

May 26, 1993

Departed the motel early for the work site at C-0-011(a), held a site safety and UXO safety brief and continued clearing lanes, due to the increase in size of the SWMU we moved to the southeast section and began clearing an access road so our CP will be outside of the SWMU. (C-MAP "A"). Continued lane sweeps at the west end of the SWMU, OEW is being found 600 feet west from the boundary. OEW recovered is (4) 60mm tail fins, (14) pieces of 60mm frag, (2) 81mm tail fins and (3) pieces of 81mm frag.

May 27, 1993

Departed the motel early for the work site at C-0-011(a), held a site safety and UXO safety brief and continued clearing lanes, continuing to sweep west of the old boundary, (C-MAP A) B. Russell and (2) VIPS arrived to take an inspection trip of 37mm canyon (outside of the SWMU boundary), cleared approximately 1.4 acres today, OEW removed is (3) 60mm tail fins, (13) pieces of 60mm frag, (3) 81mm tail fins, and (3) pieces of 81mm frag.

May 28, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UKO safety brief and continued clearing lanes, Training conducted this date was by J.R. Stallings the subject was Demolition Procedures and electric and non-electric firing circuits safety. Clearing lanes along side of the boundary of the unfinished area to allow access to the survey crew. Weather is chasing us off the hill now and then, no OEW found.

May 29, 30, 31,

Holiday, RDO

Sincerely

Charles. Wharton, SR.
President

400-310-001-4400

started on the south side of the stream and went around the west boundary to the north side of the stream. Completed (11) lanes on the south side and (30) lanes on the north side, the lanes are short 75 to 100 feet long, no UXO\OEW or trash located.

May 5, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and commenced clearing lanes. Swept (45) short 75 to 100 feet lanes, no UXO\OEW recovered. Raining late in the day.

May 6, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and continued clearing lanes. SURV-TEK will finish with the boundaries within the next hour or so. C-0-020 has been completed with-in the new boundaries that were set. We are moving to SWMU 0-011(e) and will do a walk over the area to come up with a plan for the clearance lanes. R. Brown called us on the radio and informed us we did not have clearance from the Forest Service to do this area yet. Met with Mr. J. Aldrich at the base of the search area, we are to move over to SWMU 0-011(c). J. Aldrich and Brent Russell from ERM\Golder will go over and flag the search boundaries. EHSI cleared (11) lanes, all that was found were a mix of 60\40 metal cans and trash the rest was hot rocks. During the survey of 0-011(e) many pieces of frag and live 37mm rounds were seen, on top of the bluff was 50 cal rounds and frag. We will recommend checking the top.

May 7, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes. A. Ebner performed QA\QC runs on lane #4, (2) hot rocks and a small piece of aluminum can found. Ebner and Thompson departed for the site trailer to assist the contractor move the trailer to its new location. All contacts this day were rocks, cans and wire, the trailer has been relocated.

May 8, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes, lanes are marked as section #2 on the map. Stallins departed for Santa Fe to return equipment to the rental agency. Twice during the day we stopped work because of heavy rain and lightning. We cleared another 1.3 acres no UXO\OEW found just more rocks and trash.

May 9, 1993

Sunday, RDO

May 10, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief, moved to this site to check the area outside of the fence boundaries to see how far we will clear. We have about three fourths of an acre left inside the fenced boundaries. Frank Pierce arrived from HDT-EMO to discuss the demolition support for the 37mm canyon site. All procedures were discussed, we will be using our SOP as it is the same as theirs. We will use electric and non-electric with C-4. UXO\OEW removed today was (7) 60mm tail fins, (43) pieces of 60mm frag, (2) 60mm fuzes, (9) 81mm tail fins, (6) pieces of 81mm frag. Slow going because of small metal and fence staples. A. Ebner conducted CA\OC on lanes #5 and #11. There are 3 lanes left inside the fence line. When GLOPHE does this site we are going to have quite a few white flags, as there system finds anything ferrous but not non-ferrous.

May 11, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief, moved to this site to check the area outside of the fence boundaries to see how far we will clear. EHSI Team #2 working inside to finish that section. Team #1 moved to the outside and laid out (2) long search lanes, Team #2 completed inside the fence line. The long search lanes run from east to west, (3) other lanes run from south to north. OEW contamination runs approximately to the west another 550 feet and to the north approximately 270 feet. It looks like the target area was outside of the fenced boundaries. OEW removed was (42) 60mm tail fins, (68) pieces of 60mm frag, (3) 60mm fuzes, (5) 81mm tail fins and (6) pieces of 81mm frag. (note) the access road could very well be in the real impact zone.

May 12, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes west of the fenced area, Ebner conducted random sweeps as far as 600 feet to the west and 450 feet to the south on the south side of the road. The area is covered with 60mm, 81mm frag, fuzes and tail fins this looks like it is the target area for this SWMU. We marked and measured the outside area and it adds another 11 acres to this SWMU. The amount of UXO\OEW removed today was over 300 pieces, very little trash or hot rocks were found. OEW recovered was (29) 60mm tail fins, (10) 60mm fuzes, (209) pieces of 60mm frag, (221) 81mm tail fins, and (25) pieces of 81mm frag.

1044-100-011-144

May 13, 1993

Departed the motel for the work site at C-0 011(A), held a site safety and UXO safety brief and continued clearing lanes. Continuing to sweep assigned lanes, west of the fenced area, work was stopped late in the afternoon due to rain, hail and lightning storms. Returned to the site and conducted PMS on all of the equipment. OEW recovered today was: (1) 60mm tail fins, (11) 60mm fuzes, (2) pieces of 60mm frag, (3) 81mm tail fins, (3) pieces of 81mm frag it was slow going today because of the large amount of contacts. A majority of the small ferrous contacts are from barbed wire and fence staples that are corroding into small pieces.

May 14, 1993

Departed the motel for the work site at C-0 011(C), held a site safety and UXO safety brief and continued clearing lanes in section #2 as shown on map. J. Aldrich arrived on site and was briefed. B. Russell arrived and joined the brief. Both departed later. area covered was approximately 1.2 acres no OEW\UXO was recovered.

May 15, 1993

Departed the motel early for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. the rifle range is closed for the weekend so we figured we better use the time to continue this site. worked most of the day but kept getting chased off the site with rain, hail and lightning. OEW recovered was: (7) 60mm tail fins, (55) pieces of 60mm frag, (4) 60mm fuzes and (1) 81mm tail fin.

May 16, 1993

Departed the motel early for the work site at C-0 011(A), held a site safety and UXO safety brief and continued clearing lanes. Finer performed DD sweeps on lanes 31 and 34, no contacts except for small surface debris which fell off of the subsurface material that was removed. Moved from this site at noon because the rifle range opened up again. Installed tie downs on the site trailer. Conducted PMS on the equipment and vehicles. OEW included: (1) 60mm tail fin, (35) pieces of 60mm frag, (2) 81mm tail fins, (15) pieces of 81mm frag, and various small arms.

May 17, 1993

FOC

100-100000-1111

May 18, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes, raining off and on we are working between the rain and lightning. When it stops we start, clearing lanes in section 4. J. Aldrich arrived with (5) VIPS for a brief and tour of the area. No OEWAUXO located.

May 19, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes cleared 1.6 acres today, no OEWAUXO.

May 20, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes stopped and started a few times today because of the lightning and rain cleared .8 acres today, no OEWAUXO.

May 21, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. J. Aldrich and R. Charles came out for an inspection of 37mm canyon, we climbed to the top (Mesa) and then down along the base of the cliff. Size of the area and scope of work is OK with Mr. Aldrich. Cleared .7 acres low output due to the size and slope of the hills.

May 22, 1993

Departed the motel early for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. Set up the new field antenna at the trailer site, we have communications every where. We are going to leave the antenna in place but continue to take the radio and support equipment in.

May 23, 1993

RDC

May 24, 1993

Departed the motel early for the work site at C-0-011(a), held a site safety and UXO safety brief and continued clearing lanes. Working on 011(a) range is closed Monday thru Thursday

B. Russell brought out the crew from Geophex, gave them a brief and introduction on the site. Rain and lightning keeps chasing us off the mountain. Cleared approximately 1 acre. OEW recovered was (3) 60mm tail fins, (25) pieces of 60mm frag, 43 pieces of 81mm frag and various small arms ammunition.

May 15, 1993

Departed the motel early for the work site at C-0-011(a). held a site safety and UXO safety brief and continued clearing lanes. held general training for the teams, on proper use of their compasses during UXO/OEW sweeps. team #2 working the north cliff boundary. locating 81mm frag and tail fins. The map shows the new boundaries. We will recommend that this added area be shown on future maps. (C-MAP) escorted the survey crew into the area next to 37mm canyon to set up transits. Completed survey of the north boundary. Team 1 swept 1 acre OEW removed (4) pieces of 60mm frag.

May 26, 1993

Departed the motel early for the work site at C-0-011(a). held a site safety and UXO safety brief and continued clearing lanes. due to the increase in size of the SWMU we moved to the southeast section and began clearing an access road so our CP will be outside of the SWMU. (C-MAP "A"). continued lane sweeps at the west end of the SWMU. OEW is being found 600 feet west from the boundary. OEW recovered is (4) 60mm tail fins, (14) pieces of 60mm frag, (2) 81mm tail fins and (3) pieces of 81mm frag.

May 27, 1993

Departed the motel early for the work site at C-0-011(a). held a site safety and UXO safety brief and continued clearing lanes. continuing to sweep west of the old boundary. (C-MAP A) B. Russell and (2) VIPs arrived to take an inspection trip of 37mm canyon (outside of the SWMU boundary). cleared approximately 1.4 acres today. OEW removed is (3) 60mm tail fins, (13) pieces of 60mm frag, (2) 81mm tail fins, and (7) pieces of 81mm frag.

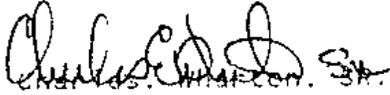
May 28, 1993

Departed the motel early for the work site at C-0-011(c). held a site safety and UXO safety brief and continued clearing lanes. Training conducted this date was by J.P. Stallings the subject was Demolition Procedures and electric and non-electric firing circuits safety. Clearing lanes along side of the boundary of the unfinished area to allow access to the survey crew. Weather is chasing us off the hill now and then. no OEW found.

May 29, 30, 31.

Holiday. RDC

Sincerely


Charles W. Johnson, Sr.
President

001-450005-14100

**ENVIRONMENTAL HAZARDS SPECIALISTS
INTERNATIONAL, INC.**

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Phone (919) 297-2991
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January 13, 1994

Summary of operations

June 1, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes. clearing lanes west of the boundary in 011(a). Checked with the Geophex personnel who are working in the first areas finished in 011(a), I explained to them about the rocks and numerous pieces of micro small wire.

Completed lane sweeps to the west 220 feet farther than the original estimate of 600 feet as shown on map "A". Sweeping lanes to the east of where we left off on 5/26. Swept 1.2 acres and removed (3) 60mm tail fins, (8) pieces of 60mm frag, (1) 60mm fuze, (3) 81mm tail fins and (1) piece of 81mm frag.

June 2, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes in 011(a). Ebner started a survey down the hard packed road, several large pieces of frag tail fins and fuzes were recovered, there is also a 16 inch steel pipe running along side of the ditch. Area covered was 1.3 acres, OEW removed was (4) 60mm tail fins, (19) pieces of 60mm frag, (1) 60mm fuze, (3) 81mm tail fins and (5) pieces of 81mm frag.

June 3, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes in 011(a). Stallings is continuing training on demolition and charge placement along with non-electric procedures. Al Ebner EHSI, R. Brown ERM/Golder and Brent Russell ERM/Golder attended a meeting at the rifle range to discuss range safety areas and the times the range will be open and closed. The entire area of 37mm canyon

is in the fan of the range. The range will be closed all week and open on Saturday and Sundays. EHSI will not work on weekends from now on. Continuing sweep of the road a complete clearance is going to have to be done, all contacts OEW that have been removed from the road are within 12 inches of the surface, other contacts were found but are too deep to investigate at this time. Area covered is 1.4 acres, OEW removed is 914) 60mm tail fins, (34) pieces of 60mm frag, (5) 60mm fuzes, (4) 81mm tail fins and (5) pieces of 81mm frag.

June 4, 1993

Departed the motel for the work site at C-0-011(C), held a site safety and UXO safety brief and continued clearing lanes in 011(c), completed survey of 011(c) cleared .8 acres no OEW found or removed. J. Aldrich and I. Won arrived Ebner gave them a brief.

June 5, 1993

Departed the motel for the work site at C-0-020, held a site safety and UXO safety brief and continued clearing lanes in C-020, we are investigating the blue flags from Geophex, at this location there are 12 flags, they are still working on another section. All flagged contacts are rocks or gravel, except for two surface contacts we had already checked and moved. The UXO\OEW survey both phase (1) and (2) are complete at\on C-020. Maintenance of equipment and vehicles was conducted for the remainder of the day.

June 6, 1993

RDO

June 7, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, lane sweeps started at a dump site which is next to the road it is very contaminated so the entire area was marked and we will return to this site later. It will probably be accomplished using a back hoe later (memo submitted) in the project along with the road. Attended a meeting with J. Aldrich, B. Russell, R. Brown and D. Sinms the rifle range manager, it was about the incident of the vehicle being hit by shotgun pellets. This is where the decision was made to close the range from 08 to 16 during the week. Area covered today was 1.1 acre UXO\OEW removed is (7) 60mm tail fins, (46) pieces of 60mm frag, (3) 60mm fuzes, (3) 81mm tail fins, and (1) piece of 81mm frag.

June 8, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, J. Aldrich and (2) VIPS arrived Ebner conducted a brief. Area covered today was 1.6 acres, UXO\OEW removed was (4) 60mm tail fins, (43) pieces of 60mm frag, (4) 60mm fuzes, (6) 81mm tail fins and (12) pieces of 81mm frag.

June 9, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, Ebner acting site safety today, held QC check on lanes that were swept. Area covered was .96 acre, UXO\OEW removed was (6) 60mm tail fins, (49) pieces of 60mm frag, (6) 60mm fuzes, (7) 81mm tail fins, and (17) pieces of 81mm frag.

June 10, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, J. Aldrich on site for some pictures and a site visit. Area covered which included the area to the south of the boundary was 1.2 acres. UXO\OEW removed was (4) 60mm tail fins, (16) pieces of 60mm frag, (2) 60mm fuzes and (1) 81mm tail fin.

June 11, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011(c), working on Geophex blue flags today, 15 flags are present all locations checked, all are rocks except one, one half inch piece of wire. No UXO\OEW found at these locations. After completing this section the rest of the afternoon was spent cleaning the equipment and vehicles and going over the events of the past month.

June 12, 13, 1993

RDO's

June 14, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, working in the south west area as per map "A". Ebner cleared an area that would become the new staging area (CP), the new boundaries are being flagged. Area completed for the day is .85 acres, UXO\OEW removed was (9) pieces of 60mm frag and (12) pieces of 81mm frag. (note) the 81mm frag may be off of something else.

June 15, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, working in the West at the South West corner. No more frag has been found at this location and we have gone (5) lanes past the last piece. We will move to the East side and continue sweeps. Stopped a little early due to the lighting and rain, completed .6 acre UXO\OEW removed was (4) 60mm pieces of frag.

June 16, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, while sweeping the first lane a live non fuzed 81mm mortar was located. The round was marked and lane sweeps continued, B. Russell and R. Brown from ERM were notified, F. Pearce from EMO\HDT who will support us were notified. After arriving on site Ebner briefed the ERM\Golder personnel who began notification of the proper personnel. Mr. J. Aldrich is out of town at this time but his office was notified. F. Pearce arrived on scene with the demolition materials, all required personnel were on site and a safety brief was conducted by Ebner. Brief included demolition placement and handling, procedures for electric hook up, communications, and command to fire procedures. Range safety and security was discussed and set up. EMO\HDT would secure the west end, EHSI will secure the east end. M. thompson and B. Thompson proceeded down range to place the demolition charge, run the firing lead set up the firing position. Everything was checked out, permission was requested to hook up the blasting machine, a final clearance check was done and permission to fire was given. The shot went as planned the site was checked and was clean. Secured all support personnel. Continued sweeping the lanes. OEW\UXO removed was (1) 60mm tail fin, (3) pieces of 60mm frag, (2) 60mm fuzes, and (1) 81mm mortar (live) which was disposed of by detonation.

June 17, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, all ares will be cleared except the dump site along the road which will be cleared later. 1.5 acres cleared OEW\UXO removed was (1) 60mm tail fin, (11) pieces of 60mm frag, (5) 81mm tail fins, and (2) pieces of 81mm frag.

June 18, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, A. Ebner and W. Stephens went over to the northeast corner to check some

of the blue flags, these are marking very small pieces of wire and nails, we cleared 27 flags (1) very small piece of frag and (1) very small piece of horse shoe, we also found 12 other little pieces of wire which were not marked by GEOPHEX, we are wasting the time and money of (LANL) picking up this wire. There are another 100 or so flags it will take us a couple of days to clear these there is not any contacts large enough to be suspected UXO Geophex does not search for ordnance they search for ferrous objects. No expertise is required just a computer, they are out of there field of expertise when it comes to searching for UNEXPLODED ORDNANCE. Cleared 1.5 acres OEW\UXO removed was (2) 60mm tail fins, (35) pieces of 60mm frag, (3) 81mm tail fins and (6) pieces of 81mm frag.

June 19, 20, 1993

RDO

June 21, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, sweeping lanes in section "C", cleared 1.4 acres today OEW\UXO removed was (6) 60mm tail fins, (47) pieces of 60mm frag, (2) 60mm fuzes, (2) 81mm tail fins, and (4) pieces of 81mm frag.

June 22, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, cleared 1.5 acres, OEW\UXO removed was (4) 60mm tail fins, (53) pieces of 60mm frag, (1) 81mm tail fin, and (9) pieces of 81mm frag.

June 23, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011a, sweeping in section "D" at this time all of SWMU 011a has been swept except for the road and trash pits. This SWMU enlarged to about 22 acres since its inception. Moved over to 011(c) to check the QA flags, checked 16 blue flags all of these had been turned over by EHSI personnel we dropped the ball not picking them up. But this is a camp site around a fire place and it is nothing but trash. SWMU 11(c) is now complete by both EHSI and Geophex. Returned to 011(a) to clear blue flags, Ebner and Stallings went to Albuquerque to return the rented Nissan and pick up a Chevy Blazer; 47 more blue flags were checked found wire and small pieces of can, these contacts had been turned over while removing large contacts of substance.

June 24, 1993

Departed the motel for the work site, held a site safety and UXO safety brief discussed the virus that is near us and moving our way, and some ways to avoid it. Set up and started sweeping in 011(e) 37mm canyon, working from the bottom we are going to sweep one side at a time, we will do the sections that will go a little faster as it will slow down as we move up. The bottom of the canyon is fairly clear and flat. (as K. Bowers would say "gently rolling hills", Area covered today was 1.5 acres, no OEW\UXO located. The ATV's are proving there worth again as we can't get the trucks too close and they provide us with an emergency vehicle.

June 25, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011(e). Due to the terrain we will not have much use for the lane clearance forms, we will keep track of the areas by sections as we did on section SWMU 010(a) at the site from last year. cleared 1.2 acres today no OEW\UXO located.

June 26, 27, 1993

RDO

June 28, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011(e), cleared 1.0 acres today no OEW\UXO found. Sweeping on the east side of the canyon, rocks and gravel are getting loose so we are having to slow down a little for safety. Cleared 1.0 acres no OEW\UXO found.

June 29, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011(e), we will finish thee east side today and move to the west side of the canyon tomorrow. Cleared 1.0 acres today, no OEW\UXO found.

June 30, 1993

Departed the motel for the work site, held a site safety and UXO safety brief and continued clearing lanes in 011(e), The west side isn't too bad but it will be the last of the clear areas. as noted by the memo we are going to need some time and equipment to

clear or do some grubbing, the bush is too thick to use the instruments to clear. The memo has all the information on it, it doesn't look like it will not add any time to the project and the cost is minimal. Cleared .8 acres today no OEW\UXO found. All hands are looking forward to the fourth of July weekend all will be going home except for Stallings who will remain on site.

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January 13, 1994

Summary of operations

July 1, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. G. Marino arrived from LANL HS-5, on site for a briefing, J.R. Stallings provided the briefing. completed sweeps for the day, no UXO/OEW recovered.

July 2, 3, 4, 5, 1993

Holiday

July 6, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Mr. J. Aldrich on site received briefing from Al Ebner, moved over to 011(A) to put flags out where the high concentrations of OEW were located for soil sampling and mapping. Covered .6 acre no UXO/OEW recovered.

July 7, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Mr J. Aldrich on site for photos and briefing. Gave Mr. J. Aldrich a show and tell on site 011(A) where the flags have been set up. Cleared .6 acre no UXO/OEW removed.

July 8, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Cleared .6 acre no UXO/OEW removed.

July 15, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the road, as we enter the impact area we are finding more 60mm and 81mm frag. Completed clearance on 500 feet of the road. UXO/OEW found and removed; (10) 60mm tail fins, (98) pieces of 60mm frag, (4) 60mm fuzes, (5) 81mm tail fins, (5) pieces of 81mm frag, and (8) pieces of various shell casings.

July 16, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. continued the clearance of the road, cleared the area south of the road, which was the old parking area. covered .6 acre UXO/OEW recovered and removed was (3) 60mm tail fins, (38) pieces of 60mm frag, (6) 81mm tail fins, (15) pieces of 81mm frag, and (3) 60mm fuzes.

July 17, 18, 1993

RDO

July 19, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. we are finding very small pieces of frag and a lot of trash, Geophex is starting there sweep of the road, they marked (4) contacts after 800 feet. cleared 3450 feet of road, there is an average of 15 contacts per 10 feet of road. Started working the ditch on the east side of the road, UXO/OEW recovered and removed was (8) 60mm tail fins, (28) pieces of 60mm frag, (11) pieces of 81mm frag, (5) 60mm fuzes, (7) 81mm tail fins, (3) empty bullet casings.

July 20, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the road, also clearing the area between the road and the original fence. Completed the road clearing the ditch on the east side of the road. UXO/OEW recovered and removed was (5) 60mm tail fins, (28) pieces of 60mm frag, (4) 60mm fuzes, (3) pieces of 81mm frag.

July 21, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the dump to see if there is any UXO/OEW present, started pulling out

tires, over 50 tires have been pulled out of the dump site, they were probably used to stop erosion, UXO/OEW recovered and removed was (4) 60mm tail fins, (18) pieces of 60mm frag, (2) 60mm fuzes, (4) 81mm tail fins, (7) pieces of 81mm frag and (5) empty bullet casings.

July 22, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the east dump area with search lanes and the back hoe, moved over to the west ditch, Geophex has completed QA of the parking area, and is working on the last 400 feet of road. while checking lanes in the east ditch a full up 60mm round was located, it was cleared enough for identification and marked. EHSI personnel continued lane sweeps and the proper people were notified. Geophex completed QA of the road area. UXO/OEW recovered and removed (7) 60mm tail fins, (32) pieces of 60mm frag, (2) 60mm fuzes, (2) 81mm tail fins, (6) pieces of 81mm frag, (1) complete 60mm mortar.

July 23, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the QA flags by using the back hoe, checked 21 flags (1) piece of 60mm frag the rest were scrap and rocks. EMO/HDT arrived with demo material to destroy the 60mm, Al Ebner gave the explosive safety brief, EHSI personnel proceeded down range to set up the shot. The firing system was checked, the area was cleared and the command to fire given, the area was checked and the search continued. clearing both ditches, Ebner conducted QA in the east ditch, over 60 more tires were removed, UXO/OEW recovered and removed was (5) 60mm tail fins, (16) pieces of 60mm frag, (4) 60mm fuzes, (1) 81mm tail fin, and (3) pieces of 81mm frag.

July 24, 25, 1993

RDO

July 26, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the west ditch area, Geophex did a QA in the ditch area so we could back fill it. We found (2) more tires and a few rocks. Lanes were set up so the ditch would receive a complete search. UXO/OEW recovered and removed was (3) 60mm tail fins, (13) pieces of 60mm frag, (3) 60mm fuzes, (3) 81mm tail; fins, and (6) pieces of 81mm frag.

July 27, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing the west ditch, completed the west ditch we have completed 011(A) Geophex can complete the QA sweep of this area. Cleaned up all debris at the site before turning the back hoe in. UXO/OEW recovered and removed was (4) 60mm tail fins, (9) pieces of 60mm frag, (2) 60mm fuzes, (3) pieces of 81mm frag, and (2) 81mm tail fins.

July 28, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes Ebner held QC on (2) lanes, cleared 1.4 acres, UXO/OEW recovered was (5) pieces of 37 mm frag and (14) bullets, (50cal).

July 29, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes found several 37mm rounds which were marked, EMO/HDT will respond to these in the morning. lighting caused the day to end area covered was 1.2 acres, UXO/OEW found and marked was (17) 37mm rounds, (5) pieces of 37mm frag, and (25) expended bullets of various caliber.

July 30, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes in the morning EMO/HDT arrived on site with the explosive material. Held the explosive safety brief and went over the demolition procedures. J. Aldrich, K. Bowers, C. Harrington arrived on site there were escorted into the SWMU area and taken to a safe area to observe the set up the shots. The shots were rigged non-electric, there would be 45 seconds between the shots. All shots went off as designed the area checked and cleared. UXO/OEW destroyed was (22) 37mm rounds by demolition.

July 31, 1993

RDO

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Summary of operations

August 2, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. working in the suspected impact area, we are finding alot of the 37mm rounds. If this continues we will sweep the area a second time. Cleared (1) acre UXO/OEW found and marked (15) 37mm rounds and (12) pieces of frag.

August 3, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Ebner completed a QA sweep of the area completed yesterday. A couple of 37mm rounds were located along with some frag , there will be a resweep of this area. Cleared .75 acre, UXO/OEW found was (8) 37mm rounds and (6) expended bullets.

August 4, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. completed the sweeps of 37mm canyon floor, we will have additional sweeps from 7-30 and 8-2, also the base of the cliffs as well as the cliff face. We also need to do some brush cutting. Conducting another sweep of the impact area. Cleared .80 acre, recovered (13) 37mm rounds, (17) pieces of frag and (5) expended bullets.

August 5, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. continuing to sweep (QA) in the impact area, K. Bowers and J. Smith arrived on site, Mr. Smith is in charge of ERM, Ebner gave them a tour of the area and showed him the equipment that we use. Cleared .80 acre, recovered (15) 37mm rounds, (26) pieces of frag and (9) expended bullets.

August 6, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Still working in the impact area of 37mm canyon, this is the second sweep of the area, cleared .75 acre, recovered (13) 37mm rounds, (21) pieces of frag and (3) expended bullets.

August 7, 8, 1993

RDO

August 9, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Starting the third sweep of the concentrated impact area, the lanes are down to 6 foot wide and 300 foot long, this should be the final sweep at this location. We are at the base of the cliff, we will have to remove brush at this location. Cleared .75 acre, recovered (9) 37mm rounds, (18) pieces of frag and (7) expended bullets.

August 10, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing lanes on the east side of the canyon, the bush hog arrived, we can start clearing the brush. Held a safety brief on the equipment and started clearing the brush was removed from the mountain.

August 11, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. continued brush clearing when we were finished we used the ATV to go up the back side of the mountain, we cleared an access trail so the scooters could carry the equipment to the top.

August 12, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. continuing lane sweeps where the brush has been removed from. recovered (2) 37mm rounds and (9) pieces of frag.

August 13, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Sweeps are completed setting up the climbing equipment for the cliff face. K. Bowers and two VIPS arrived at the site, gave them a brief and showed them the equipment that we use. Held refresher training with the climbing equipment, Ebner escorted Bowers to the top of the Mesa for an overview and brief of how the work was to be accomplished.

August 14, 15, 1993

RDO

August 16, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing. Made (14) trips up and down the cliff face using the Shonstedt to search the face. Radio communications were maintained during the entire operation. Two men were on top controlling the placement of the lines, one man directed the placement from the bottom and two men did the face. All applicable safety precautions were observed. Recovered (2) 37mm rounds and (6) expended bullets.

August 17, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing. continued the rigging and rappelling, a total of (19) ascents and descents were done checking the face of the cliff. Recovered (5) expended bullets.

August 18, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing. continued the rigging and rappelling, a total of (16) ascents and descents were done checking the face of the cliff. Recovered (5) more expended bullets.

August 19, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing. A heavy rain kept us off the mountain and after it stopped it would have been too dangerous to work the cliff face.

August 20, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. continued the rigging and rappelling, a total of (16) ascents and descents were done checking the face of the cliff. No further UXO/OEW has been found on the cliff face, restowed all climbing equipment, proceeded over to the Geophex flags at 011A, removed 128 flags, recovered (small) pieces of frag (25), the other was wire nails and scrap.

August 21, 22, 1993

RDO

August 23, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing. Made arrangements to have the demolition shot up in the canyon, EMO/HDT personnel arrived on site with the explosives, K. Bowers J. Aldrich and (6) VIPs arrived on site from LANL Ebner conducted a safety and demolition brief, three (3) shots were set up and fired using non-electric firing procedures, set to go at 6 min, 7 min and 8 min. All shots went as designed a debriefing was conducted for the VIPs, EHSI personnel went up in the ATVs to check the access area to the top of the Mesa and check the demolition area.

August 24, 1993

Departed the motel for the work site at 011(A), held a site safety and UXO safety brief and continued clearing the QA flags out side of the fenced area. recovered 48 flags all (small pieces of frag most of this frag is on the surface and was put there removing other pieces of larger frag. Almost all of the frag is in the pile of dirt removed from the hole.

August 25, 1993

Departed the motel for the work site at 011(A), held a site safety and UXO safety brief and continued clearing the QA flags inside of the fenced area and close to the road, this is the area that is full of junk and scrap iron, with a little frag thrown in. Removed 89 flags recovered (5) small pieces of tail fins, (13) assorted frag, (19) rock contacts and the rest was nails, wire and junk.

August 26, 1993

Departed the motel for the work site at 011(A), held a site safety and UXO safety brief and continued QA clearing. cleared 54 QA contacts recovered (9) pieces of small frag, the rest were rock and scrap. Spent the rest of the day working\PMS on EHSI equipment.

August 27, 1993

Departed the motel for the work site at 011(A), held a site safety and UXO safety brief and continued clearing QA lanes. Cleared (95) QA contacts, recovered (18) pieces of small frag, most of the other were rocks with very little scrap.

August 28, 29, 1993

RDO

August 30, 1993

Departed the motel for the work site at 011(AE), held a site safety and UXO safety brief and continued clearing QA lanes. checked (38) contacts, removed (1) piece of frag, the rest were rock and scrap, as before most of the material found is in the dirt that has been moved to access a piece of UXO\OEW.

August 31, 1993

Departed the motel for the work site at 011(E), held a site safety and UXO safety brief and started marking the boundary of the impact area up in 37mm canyon, this will probably be the area that will receive a QA pass. It should be noted that we found NO UXO\OEW outside of this marked area.

011-38000-100

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Summary of operations

September 1, 1993

Departed the motel for the work site at C-0-011(A), held a site safety and UXO safety brief and continued clearing lanes. Clearing contacts that have been marked by Geophex on the south side of the road at site 011-(A) sect. (B) as per enclosed drawing. Completed clearing all of section (B), 14 flags were checked recovered (2) small pieces of frag, the rest were rocks and scrap, there is just a small area left in Sect. (A).

September 2, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Returned to the main impact area to conduct some QA sweeps. Due to the high degree of contacts in this area we have conducted 2 and even 3 sweeps of the area, recovered (3) small pieces of frag from the QA sweeps

September 3, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Set up QA lanes 90 degrees from yesterday to conduct QA sweeps in the impact area. Surveyed 12 lanes recovered (3) 37mm AP rounds from with-in the rocks.

September 4, 5, 6, 1993

RDO

September 7, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps of the impact area recovered (1) 37mm AP and (3) expended bullets.

September 8, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued to QA the impact area, surveyed 14 lanes recovered (2) 37mm AP rounds and (5) pieces of frag.

September 9, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Due to the fact that Geophex would be working in the canyon ERM asked us not to work on the hill as rocks would fall on them. Proceeded to site 011-A and checked 23 contacts, (4) small pieces of frag and a can, as of today SWMU 011-A is completed.

September 10, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps in 011-A swept 10 lanes recovered (1) 37mm AP round and (3) pieces of frag.

September 11, 12, 1993

RDC

September 13, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA lane completed 7 lanes recovered 5 small pieces of frag. Our directions are to continue QA sweeps in the impact area until we find no more frag.

September 14, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps cleared (8) lanes recovered (3) pieces of frag and (2) expended 50 cal rounds.

September 15, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Continued QA sweeps of the impact area, NO UXO/OEW recovered.

100-157007-1436

September 16, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts cleared (23) flags (7) small pieces of frag and (3) 37mm AP rounds kicked out during the shot on 8/23.

September 17, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex flags (7) flags checked (1) small frag the rest were rocks.

September 18, 19, 1993

RDO

September 20, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts found during the QA sweep (14) flags checked (3) frag and (2) 37mm rounds (1) we had already found and (1) buried inside of a rock.

September 21, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. No QA flag today so we did random lanes in the impact area, no contacts found.

September 22, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts checked (7) contacts (2) frag and (1) 37mm again buried inside of a rock.

September 23, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts, no UXO/OEW found, packing up some of the equipment as we will be completed friday and demobilize on saturday.

2025 RELEASE UNDER E.O. 14176

September 24, 1993

Departed the motel for the work site at C-0-011(E), held a site safety and UXO safety brief and continued clearing lanes. Clearing Geophex contacts, (7) flags checked (2) frag the rest were rock. HDT personnel arrived to assist with the demolition shot. There was (10) 37mm rounds to dispose of, this will be the final shot. The shot was rigged non-electric the area cleared and the command to fire given. The area was checked the frag recovered and all equipment stowed. EHS personnel returned to the hotel to finish packing out.

September 25, 1993

Demobilizing and packing out all equipment. One half day was used to pack out all of the equipment, I would like to thank everyone involved with this project for all the help and support that was provided to EHSI personnel during this project. Without this help the project certainly would have taken longer, it was a pleasure to see the Project Manager (LANL) on site at critical times to adjust the clearance requirements. At no time was there any question as to our tasking requirements. It was a dangerous and difficult task that was completed without incident/accident. The support HDT provided was invaluable to the entire project. The cost would have been higher, and storage and transportation of the required explosives would have been an unneeded nightmare. The personnel at contracts (Ms Christine Othart) has been instrumental in the contract negotiations and timely return of the invoices. If we may be of any service in our fields of expertise we would be glad to return, again Thank You

Sincerely

Charles E. Wharton, Sr.
President

The lane width was an average of eight (8) ft. and the lanes were formed with the use of two lines which were laid out parallel to each other. After one lane was complete, the outside line was moved over to form the next lane. (see fig. 1) This was continued until all of the lanes in each section were complete.

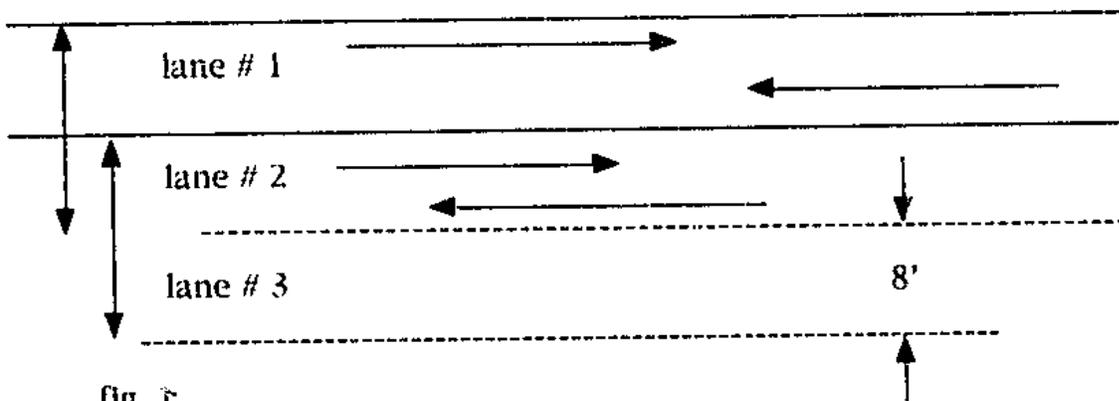


fig. 1

The orientation of the lanes was controlled by either the terrain where we were working, the boundaries which were preset and changed as required forming new boundaries or as required to complete a section within the boundaries. Whenever possible, the lanes were set up in a straight line and each section would be run parallel to the last section. If this was not possible, then the last lane would be marked with flags so that we would not lose track of the areas that were complete and areas which still needed to be completed.

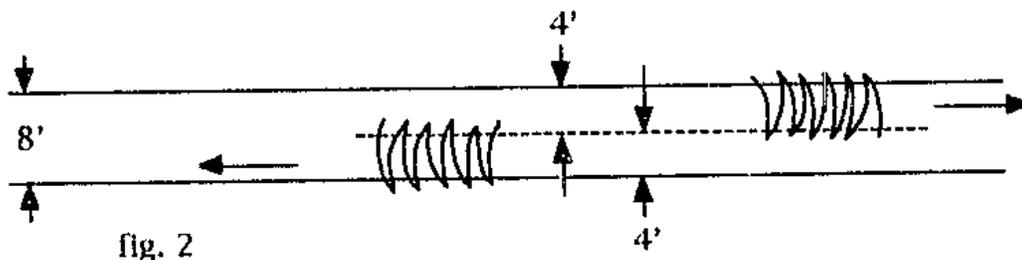


fig. 2

The lanes were set up in approx. 8' widths and were swept up one side and down the other (see fig. 2) in 4' to 5' arc which would overlap both in the middle and at each side with the last pass. When one lane was complete, we would shift to the next lane and perform the same procedure.

To sweep these lanes we would use the MK 26 FORSTER ferrous locator, the SCHONSTEDT ferrous locator and the WHITE 6000 / PRO ferrous / non-ferrous locator. The MK 26 was used in most situations but there were times when the terrain or the geophysical influence would require the use of one of the other locators. We would perform a QA sweep of a percentage of the lanes using the same type of instrument. We would also use the other instruments in our QA sweeps to ensure that the one we were using was accurate.

To define the outermost extent or boundaries in any of the SWMU we would continue our lane sweeps until we found no more OEW/UXO. We would then continue our lane sweeps for 50 ft. in all directions (approx. 6 more lanes) and if we found nothing then this area would be considered a boundary. If at any point along this search we found OEW/UXO then the lanes would be extended and the procedure would begin again. If any OEW/UXO was found during our own QA sweeps or the geophysical survey, the entire lane would be reswept. If it was near a boundary then we would do 50 ft. more to ensure that the boundaries were correct.

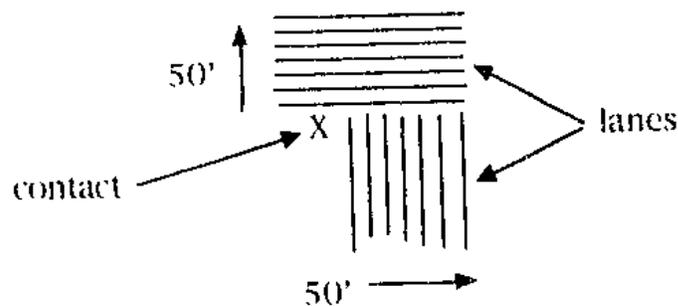
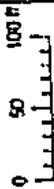


fig. 3

SWIMU boundary
Unimproved road
Intermittent stream
Contour interval 2 ft
New Mexico State
Plane Coordinates



Source: FINAD G100913
1/25/93
Redrawn by: A. Koon,
CAIT Geography, 1/26/93
Rev. 0



Section SWM (0-0114)

1000 10 11 12

Phase ONE

Grid Grid Grid

1	5 OEW 60 MM FRAG	21	6 OEW FRAG SIMM QA LANE	41	7 OEW FIN 60MM/FRAG
2	4 OEW 60 MM FRAG / FRAG	22	9 OEW FIN SIMM / FRAG	42	11 OEW FIN 60MM / FRAG
3	5 OEW 60 MM FRAG / FRAG / ¹²⁻²⁵⁰ H/C	23	4 OEW FRAG QA LANE NO CONTACT	43	14 OEW FIN 60MM / FRAG
4	5 OEW FIN / FRAG / 2 FR - BULL	24	5 OEW FIN / FRAG	44	5 OEW FIN 81 / FRAG
5	2 OEW FRAG	25	4 OEW FRAG SIMM	45	9 OEW FIN 81 / FRAG QA LANE NO CONTACT
6	2 OEW FIN / FRAG QA LANE	26	5 OEW FIN / FRAG	46	7 OEW FRAG
7	2 OEW FRAG	27	6 OEW FIN / FRAG	47	6 OEW FIN 81 / FRAG
8	4 OEW FIN / FRAG	28	9 OEW FIN SIMM / FRAG	48	7 OEW FIN 60 / FRAG
9	7 OEW FRAG QA LANE	29	4 OEW FRAG	49	1 OEW 60 MM FRAG
10	4 OEW FIN / FRAG	30	5 OEW FIN / FRAG	50	2 OEW 60 MM FRAG
11	2 OEW FRAG / 61 FIN	31	5 OEW FIN 81 / 60 MM / FRAG	51	11/4 OEW CONTACT
12	3 OEW FRAG / BULLET	32	6 OEW FRAG	52	" "
13	3 OEW FRAG	33	8 OEW FRAG	53	" "
14	5 OEW FIN / FRAG / BULLET	34	12 OEW FIN SIMM / FRAG	54	" "
15	1 OEW FRAG	35	9 OEW FIN SIMM / FRAG	55	" "
16	3 OEW FRAG / BULLET	36	8 OEW FIN SIMM / FRAG	56	" "
17	2 OEW FRAG	37	11 OEW FIN 60 MM / FRAG	57	" "
18	4 OEW FIN / FRAG	38	8 OEW FRAG	58	" "
19	6 OEW FIN SIMM / FRAG	39	9 OEW FIN 81 / 60 / FRAG	59	19 OEW 60 MM / SIMM / FRAG / BULLET
20	7 OEW FRAG	40	8 OEW FRAG	60	32 OEW 60 MM / 81 MM / FRAG / BULLET

1/2

1

4/23

4/23

4/26

4/29

4/29

Pg # 2

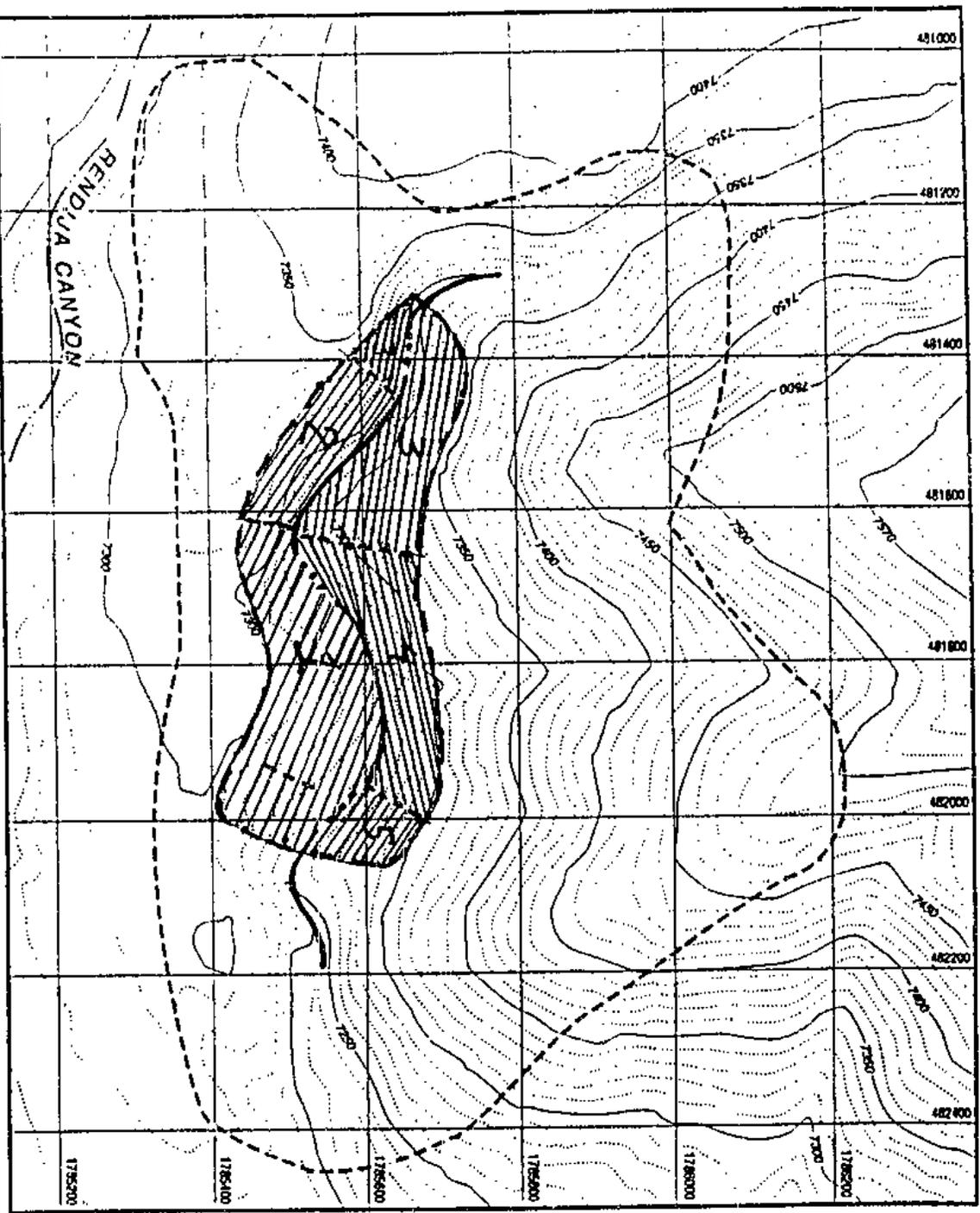
Section 3 (WOM) 0-011 (A)

Phase ONE

Grid Grid Grid

61	8 OEW 60/81 TAIL FRAG	81	3 OEW 60 FRAG	101	
62	10 OEW 60/81 TAIL FRAG	82	3 OEW 60 FRAG/FUSE	102	
63	4 OEW 81 TAIL FRAG	83	4 OEW 40 FRAG	103	
64	11 OEW 60/81 TAIL/FUSE/FRAG	84	1 OEW 81 TAIL	104	
65	5 OEW 60 TAIL/FUSE/FRAG	85	3 OEW 81 TAIL FRAG	105	
66	5 OEW 60 FRAG	86	4 OEW (5-10-93) 60/81 TAIL FRAG	106	
540-93 67	5 OEW (5-10-93) 60/81 TAIL FRAG	87	6 OEW (5-11-93) 60/81 TAIL FRAG	107	
68	6 OEW 60 FRAG	88	3 OEW 5-10-93 60 FRAG	108	
69	2 OEW 60 TAIL/FRAG	89	2 OEW (5-11-93) 60 FRAG	109	
70	3 OEW 60 FRAG	90	5-11-93 NO CONTACT	110	
71	3 OEW 60 FRAG M6 QIA	91	X	111	
72	3 OEW 60/81 TAIL FRAG	92		112	
73	3 OEW 60 FRAG	93		113	
74	2 OEW 60/81 TAIL FRAG	94		114	
75	4 OEW 60 TAIL/FUSE	95		115	
76	1 OEW 60 FRAG	96		115	
77	1 OEW 60 FRAG TAX FRAG 104 QIA	97		117	
78	5 OEW 60 FRAG	98		118	
79	5 OEW 81 FRAG	99		119	
80	3 OEW 60/81 FRAG	100		120	

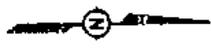
NO. 14 - 1950 - 1951



ATTACHMENT C. Site map for Area of Concern C-0-020.

No's ARE FOR
SECTIONS CLEARED
OF
APPROX AREA AND SIZE
OF AOC-0-020

AOC boundary
 intermittent stream
 Contour interval 10 ft
 New Mexico State
 Plane Coordinates
 0 50 100 150 ft
 Source: TMAD 010916
 12583
 Prepared by: A.M. Dyer
 CARTOGRAPHY, 12/78
 Rev. 0



SECT	DATE
# 1	4-30-93
# 2	5-3-93
# 3	5-4-93
# 4	5-5-93
# 5	5-6-93

Section C-0-020

Phase ONE

START 4-30-93/5-6-93

Grid

Grid

Grid

4-30-93	1	N/A	NO DEW/LXO CONTACT	21		41	
	2			22		42	
	3			23		43	
	4			24		44	
	5			25		45	5-4-93 NO CONTACT
	6			26		46	
	7			27		47	
	8			28		48	
	9			29		49	
	10			30		50	
4-30-93	11	N/A	NO DEW/LXO CONTACT	31		51	
	12	5-3-93		32		52	
	13			33		53	
	14			34	5-3-93 NO CONTACT	54	
	15			35	5-4-93 NO CONTACT	55	
	16			36		56	
	17			37		57	
	18			38		58	
	19			39		59	
	20			40		60	5-4-93

* NC = NO CONTACT.

Section C-0-020

Pg #2

Phase ONE

START 4-30-93 / 5-6-93

Grid Grid Grid

61	5-4-93 NO CONTACT	61	5-4-93 NO CONTACT	101	5-4-93 NO CONTACT
62		62		102	
63		63		103	
64		64		104	
65		65		105	
66		66		106	
67		67		107	
68		68		108	
69		69		109	
70		70		110	
71		71		111	
72		72		112	
73		73		113	
74		74		114	
75	5-4-93 NO CONTACT	75		115	
76	5-5-93 NO CONTACT	76		115	
77		77		117	
78		78		118	
79		79		119	
80		80	5-5-93 NO CONTACT	120	5-5-93 NO CONTACT

Pg #3

Section C-10-020

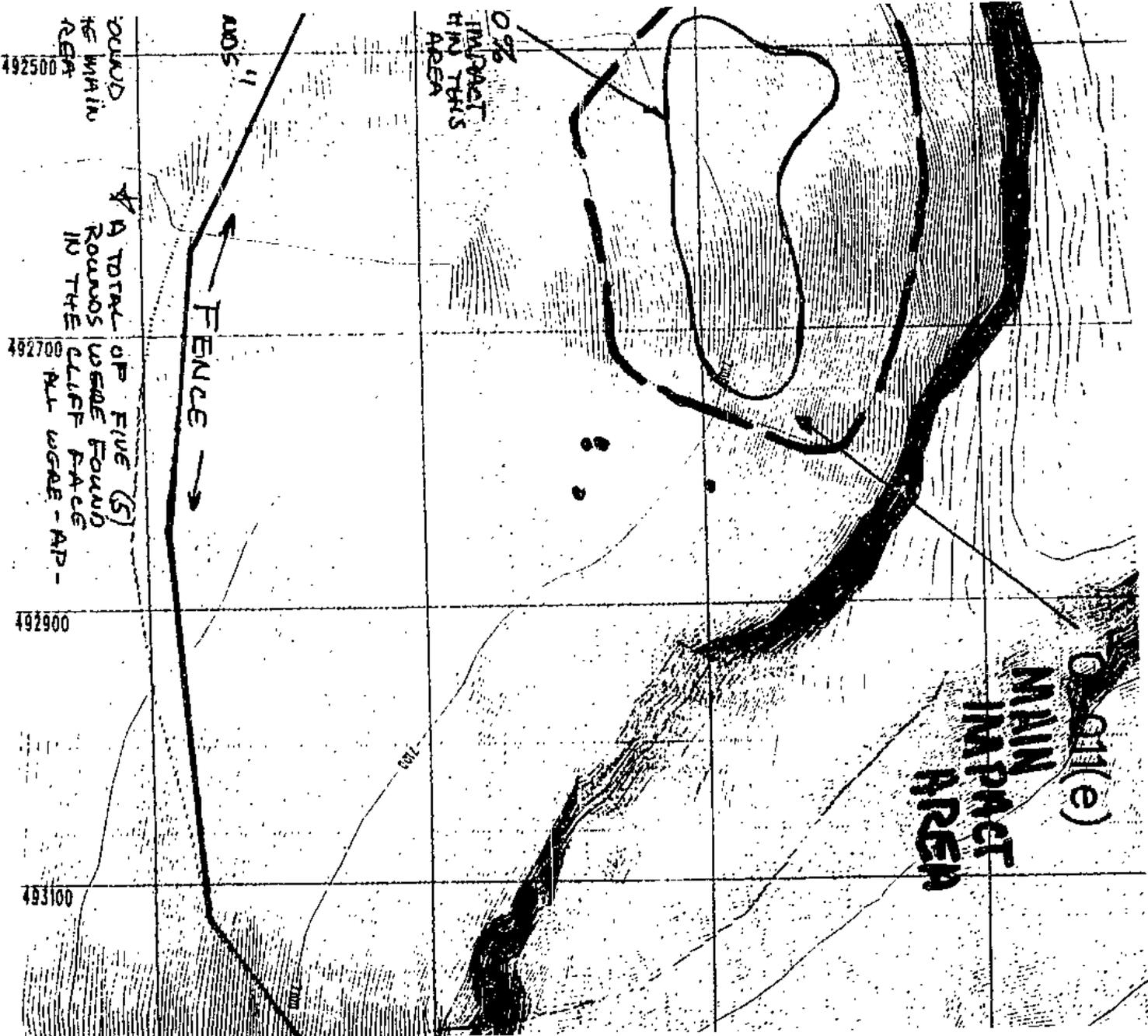
Phase ONE

4-30-93 / 5-6-93

Grid Grid Grid

12 1	5-6-93 NO CONTACT	1	1
12 2		2	2
12 3		3	3
12 4		4	4
12 5		5	5
12 6		6	6
12 7		7	7
12 8	5-6-93 NO CONTACT	8	8
9		9	9
0		0	0
1		1	1
2		2	2
3		3	3
4		4	4
5		5	5
6		6	6
7		7	7
8		8	8
9		9	9
0		J	J

6-1-93



0%
IMPACT
HINDTALS
AREA

(e)
MAIN
IMPACT
AREA

FENCE

BOUND
TO MAIN
AREA

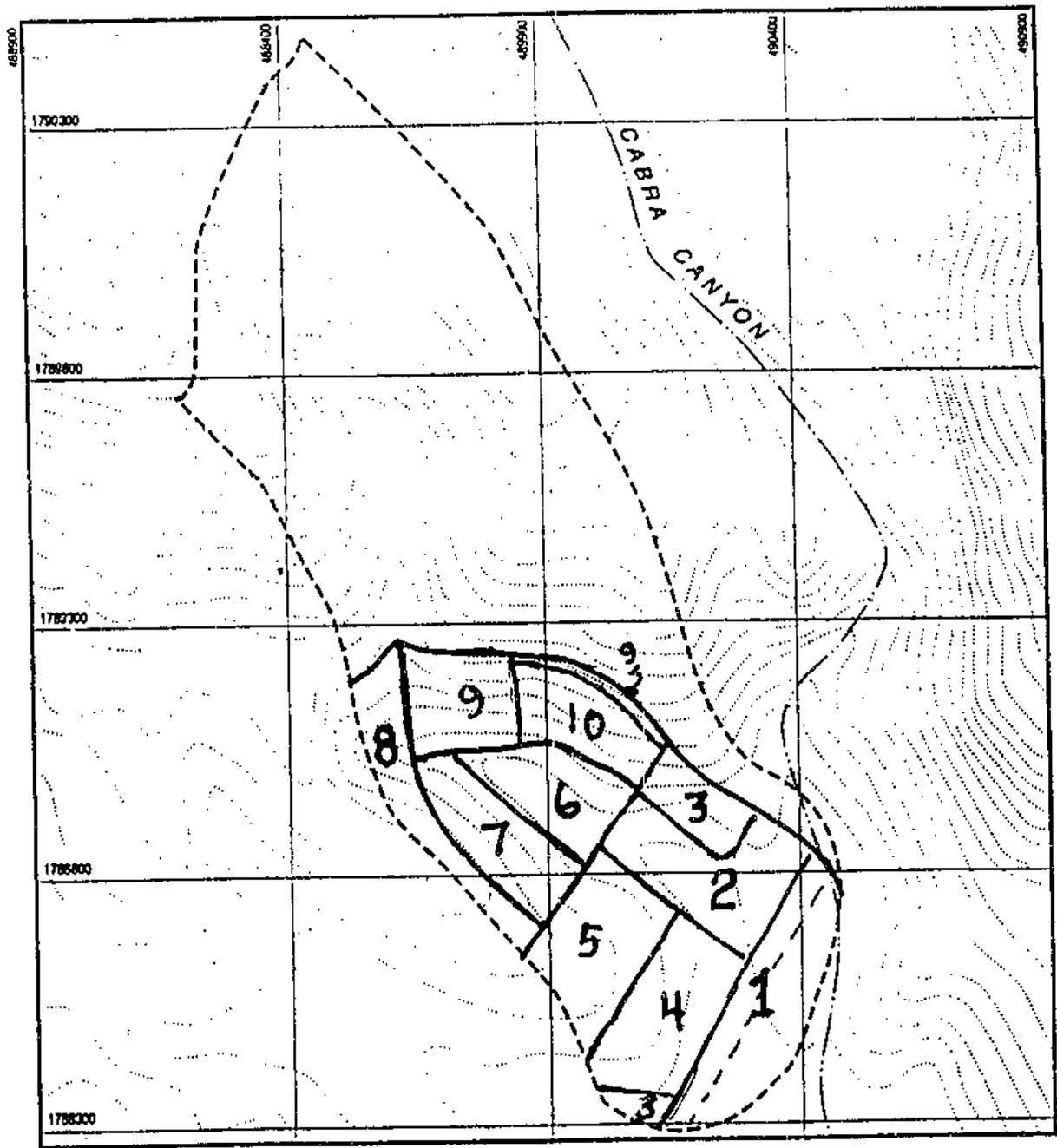
A TOTAL OF FIVE (5)
ROUNDS OF USGAE FOUND
IN THE CLIFF FACE -
ALL USGAE - AP -

492500

492700

492900

493100



<p>--- SWMU boundary</p> <p>--- Intermittent stream</p> <p>Contour interval 10 ft (?)</p> <p>New Mexico State Plane Coordinates</p>	<p>Source: FMAD G100914 1/25/83</p> <p>Redrawn by: A. Kon cARTography, 1/27/90</p> <p>Rev. 0</p> <p>0 100 200 ft</p>
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ATTACHMENT F. Site map for SWMU 0-011(c).

0-011(c) SWMU 0-011(c) Site Map

Section 0-011(c)

Phase ONE

5-6-93 / 6-5-93

Grid

Grid

Grid

1	5-6-93	21		41	
2		22		42	NO CONTACT 5-14-93
3		23		43	5-14-93 NO CONTACT
4		24		44	
5		25		45	
6	5-6-93	26		46	5-14-93 NO CONTACT
7	5-7-93	27	NO CONTACT 5-8-93	47	5-14-93 NO CONTACT
8		28	5-14-93 NO CONTACT	48	
9		29		49	
10		30		50	
11		31		51	
12		32		52	
13		33		53	
14		34		54	
15	5-7-93 5-8-93 NO CONTACT	35		55	
16		36		56	
17		37		57	
18		38		58	
19		39		59	
20		40		60	5-18-93 NO CONTACT

Section C-011(C)

Phase ONE

5-1-93 6-5-93

Grid

Grid

Grid

61	5-15-93 NO CONTRACT	81		101	5-21-93 NO CONTRACT
62		82		102	
63		83		103	
64	5-15-93 NO CONTRACT	84		104	
65	5-1-93 NO CONTRACT	85		105	
66		86		106	
67		87	5-14-93 NO CONTRACT	107	
68		88	5-20-93 NO CONTRACT	108	
69		89		109	
70		90		110	
71		91		111	
72		92		112	
73		93		113	
74		94		114	
75		95		115	5-26-93 NO CONTRACT
76		96		115	5-22-93 NO CONTRACT
77		97		117	
78		98		118	
79		99		119	
80		100	5-20-93 NO CONTRACT	120	

Section O-011 (c)

Phase SNE

5-6-93 / 6-5-93

Grid Grid Grid

121	5-22-93 NO CONTACT	141		1	6-5-93 NO CONTACT
122		142		2	
123		143		3	
124		144		4	
125		145		5	
126		146		6	
127		147		7	
128		148		8	
129	5-22-93 NO CONTACT	149	5-25-93 NO CONTACT	9	
130	5-22-93 NO CONTACT	150	6-5-93 NO CONTACT	0	
131		151		1	
132		152		2	
133		153		3	
134		154		4	
135		155		5	
136		156		5	
137		157		7	
138		158		8	
139		159		9	
140		160		0	

DATE: 11/15/93 BY: JMS