



DEPARTMENT OF THE AIR FORCE  
27TH SPECIAL OPERATIONS WING (AFSOC)  
CANNON AIR FORCE BASE NEW MEXICO



Colonel Timothy J. Leahy  
Commander  
100 S DL Ingram Blvd Suite 100, Bldg 1  
Cannon AFB NM 88103-5214

Mr. James Bearzi  
Chief Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East Building 1  
Santa Fe NM 87505-6303

Dear Mr. Bearzi

Cannon Air Force Base hereby submits the attached Revised Part A Permit application and attachments to initiate the Part B Melrose Air Force Range (MAFR) Corrective Action Only Permit. This submission is in response to your letter regarding the deferment for the submittal of the revised Resource Conservation and Recovery Act Facility Investigation Work Plan for MAFR, dated 19 Jun 07.

Should you or your staff have any questions regarding this permit application, please contact Ms. Kristi L. Doll at (575) 784-1091 or Mr. Ronald A. Lancaster at (575) 784-1146.

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely

  
TIMOTHY J. LEAHY, Colonel, USAF

Attachments:

1. Part A Application (EPA Form 8700-23)
2. Part B Narratives

cc:

NMED HWB (D. Cobrain)  
NMED HWB (C. Frischkorn)  
US EPA Region VI (B. Sturdivant)  
HQ AFSOC/A7AV (J. Steele)  
27 SOW/JA  
27 SOW/SEG

DEC 21 2007



<p><b>SEND COMPLETED FORM TO:</b> The Appropriate State or EPA Regional Office.</p>	<p>United States Environmental Protection Agency</p> <p><b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b></p>		
<p><b>1. Reason for Submittal</b> (See instructions on page 14.)</p> <p>MARK ALL BOX(ES) THAT APPLY</p>	<p><b>Reason for Submittal:</b></p> <p><input type="checkbox"/> To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities)</p> <p><input type="checkbox"/> To provide Subsequent Notification of Regulated Waste Activity (to update site identification information)</p> <p><input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application</p> <p><input checked="" type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # <u>2</u>)</p> <p><input type="checkbox"/> As a component of the Hazardous Waste Report</p>		
<p><b>2. Site EPA ID Number</b> (page 15)</p>	<p><b>EPA ID Number</b></p> <p style="text-align: center;">  N   M   5   1   5   7   2   1   2   4   4   5   6  </p>		
<p><b>3. Site Name</b> (page 15)</p>	<p><b>Name:</b> MELROSE AIR FORCE RANGE/CANNON AIR FORCE BASE</p>		
<p><b>4. Site Location Information</b> (page 15)</p>	<p><b>Street Address:</b> 506 N DL INGRAM BLVD</p>		
	<p><b>City, Town, or Village:</b> CANNON AFB</p>	<p><b>State:</b> NEW MEXICO</p>	
	<p><b>County Name:</b> CURRY</p>	<p><b>Zip Code:</b> 88103-5003</p>	
<p><b>5. Site Land Type</b> (page 15)</p>	<p><b>Site Land Type:</b> <input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>		
<p><b>6. North American Industry Classification System (NAICS) Code(s) for the Site</b> (page 15)</p>	<p><b>A.</b></p> <p style="text-align: center;">               </p>	<p><b>B.</b></p> <p style="text-align: center;">               </p>	
	<p><b>C.</b></p> <p style="text-align: center;">               </p>	<p><b>D.</b></p> <p style="text-align: center;">               </p>	
<p><b>7. Site Mailing Address</b> (page 16)</p>	<p><b>Street or P. O. Box:</b> 506 N DL INGRAM BLVD</p>		
	<p><b>City, Town, or Village:</b> CANNON AFB</p>		
	<p><b>State:</b> NEW MEXICO</p>		
	<p><b>Country:</b> UNITED STATES</p>	<p><b>Zip Code:</b> 88103-5003</p>	
<p><b>8. Site Contact Person</b> (page 16)</p>	<p><b>First Name:</b> TIMOTHY</p>	<p><b>MI:</b> J</p>	<p><b>Last Name:</b> LEAHY</p>
	<p><b>Phone Number:</b> (575) 784-2727 <b>Extension:</b></p>		<p><b>Email address:</b> timothy.leahy@cannon.af.mil</p>
<p><b>9. Operator and Legal Owner of the Site</b> (pages 16 and 17)</p>	<p><b>A. Name of Site's Operator:</b> Commander, 27th Special Operations Wing</p>		<p><b>Date Became Operator (mm/dd/yyyy):</b> 10/01/2007</p>
	<p><b>Operator Type:</b> <input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>		
	<p><b>B. Name of Site's Legal Owner:</b> USAF 27th Special Operations Wing</p>		<p><b>Date Became Owner (mm/dd/yyyy):</b> 10/01/2007</p>
	<p><b>Owner Type:</b> <input type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other</p>		

9. Legal Owner (Continued) Address	Street or P. O. Box: 100 N DL INGRAM BLVD, SUITE 100	
	City, Town, or Village: CANNON AFB	
	State: NM	
	Country: UNITED STATES	Zip Code: 88103-5214

**10. Type of Regulated Waste Activity**  
 Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 18 to 21.)

**A. Hazardous Waste Activities**  
 Complete all parts for 1 through 6.

1. Generator of Hazardous Waste  
 If "Yes", choose only one of the following - a, b, or c.
- a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or
  - b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or
  - c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste

2. Transporter of Hazardous Waste
3. Treater, Storer, or Disposer of Hazardous Waste (at your site) Note: A hazardous waste permit is required for this activity.
4. Recycler of Hazardous Waste (at your site)
5. Exempt Boiler and/or Industrial Furnace  
 If "Yes", mark each that applies.
- a. Small Quantity On-site Burner Exemption
  - b. Smelting, Melting, and Refining Furnace Exemption
6. Underground Injection Control

In addition, indicate other generator activities.

- d. United States Importer of Hazardous Waste
- e. Mixed Waste (hazardous and radioactive) Generator

**B. Universal Waste Activities**

1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. If "Yes", mark all boxes that apply:

	<u>Generate</u>	<u>Accumulate</u>
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
f. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
g. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>

2. Destination Facility for Universal Waste  
 Note: A hazardous waste permit may be required for this activity.

**C. Used Oil Activities**

Mark all boxes that apply.

1. Used Oil Transporter  
 If "Yes", mark each that applies.
- a. Transporter
  - b. Transfer Facility
2. Used Oil Processor and/or Re-refiner  
 If "Yes", mark each that applies.
- a. Processor
  - b. Re-refiner
3. Off-Specification Used Oil Burner
4. Used Oil Fuel Marketer  
 If "Yes", mark each that applies.
- a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
  - b. Marketer Who First Claims the Used Oil Meets the Specifications



United States Environmental Protection Agency  
**HAZARDOUS WASTE PERMIT INFORMATION FORM**

1. Facility Permit Contact (See instructions on page 23)	First Name: KRISTI	MI: L	Last Name: DOLL										
	Phone Number: (575) 784-1091		Phone Number Extension:										
2. Facility Permit Contact Mailing Address (See instructions on page 23)	Street or P.O. Box: 506 N DL INGRAM BLVD												
	City, Town, or Village: CANNON AFB												
	State: NEW MEXICO												
	Country: UNITED STATES	Zip Code: 88103-5003											
3. Operator Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: 506 N DL INGRAM BLVD												
	City, Town, or Village: CANNON AFB												
	State: NEW MEXICO												
	Country: UNITED STATES	Zip Code: 88103-5003	Phone Number: (575) 784-2008										
4. Legal Owner Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: 100 DL INGRAM BLVD, STE 100												
	City, Town, or Village: CANNON AFB												
	State: NEW MEXICO												
	Country: UNITED STATES	Zip Code: 88103-5214	Phone Number:										
5. Facility Existence Date (See instructions on page 24)	Facility Existence Date (mm/dd/yyyy): 01/01/1967												
6. Other Environmental Permits (See instructions on page 24)													
A. Permit Type (Enter code)	B. Permit Number			C. Description									
AIR	1	5	1	7	-	M	-	1					Clean Air Act: Synthetic Minor Permit
NPDES	N	M	R	0	5	A	0	1	2				NPDES Multi-sector Storm Water Permit
7. Nature of Business (Provide a brief description; see instructions on page 24)													
The mission of the wing include infiltration, exfiltration and re-supply of special operations forces; air refueling of special operations rotary wing and tiltrotor aircraft; and precision fire support. These capabilities support a variety of special operations missions including direct action, unconventional warfare, special reconnaissance, counter-terrorism, personnel recovery, psychological operations and information operations.													

8. Process Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

A. PROCESS CODE - Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).

B. PROCESS DESIGN CAPACITY- For each code entered in Section A, enter the capacity of the process.

1. AMOUNT - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
2. UNIT OF MEASURE - For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

C. PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units for each corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	<u>Disposal:</u>			<u>Treatment (continued):</u>	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	For T81-T93:
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards	T82	Lime Kiln	
D81	Land Treatment	Acres or Hectares	T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T84	Phosphate Kiln	
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T85	Coke Oven	
D99	Other Disposal	Any Unit of Measure in Code Table Below	T86	Blast Furnace	
	<u>Storage:</u>		T87	Smelting, Melting, or Refining Furnace	Hour; or Million Btu Per Hour
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards	T88	Titanium Dioxide Chloride Oxidation Reactor	
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T89	Methane Reforming Furnace	
S03	Waste Pile	Cubic Yards or Cubic Meters	T90	Pulping Liquor Recovery Furnace	
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards	T92	Halogen Acid Furnaces	
S06	Containment Building Storage	Cubic Yards or Cubic Meters	T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
S99	Other Storage	Any Unit of Measure in Code Table Below	T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	<u>Treatment:</u>			<u>Miscellaneous (Subpart X):</u>	
T01	Tank Treatment	Gallons Per Day; Liters Per Day	X01	Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour	X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons.....	G	Short Tons Per Hour.....	D	Cubic Yards.....	Y
Gallons Per Hour.....	E	Metric Tons Per Hour.....	W	Cubic Meters.....	C
Gallons Per Day.....	U	Short Tons Per Day.....	N	Acres.....	B
Liters.....	L	Metric Tons Per Day.....	S	Acre-feet.....	A
Liters Per Hour.....	H	Pounds Per Hour.....	J	Hectares.....	Q
Liters Per Day.....	V	Kilograms Per Hour.....	R	Hectare-meter.....	F
		Million Btu Per Hour.....	X	Btu Per Hour.....	I

8. Process Codes and Design Capacities (Continued)													
EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.													
Line Number	A. Process Code (From list above)				B. PROCESS DESIGN CAPACITY				(2) Unit of Measure (Enter code)	C. Process Total Number of Units			For Official Use Only
					(1) Amount (Specify)								
X	1	S	0	2									
	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
	13												
	14												
	15												
NOTE: If you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.													
9. Other Processes (See Instructions on page 25 and follow Instructions from Item 8 for D99, S99, T04 and X99 process codes)													
Line Number (Enter #s in sequence with Item 8)	A. Process Code (From list above)				B. PROCESS DESIGN CAPACITY				(2) Unit of Measure (Enter code)	C. Process Total Number of Units			D. Description of Process
					(1) Amount (Specify)								
X	2	T	0	4									In-situ Vitrification

10. Description of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5.

- A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- C. UNIT OF MEASURE - For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 10.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES																	
	(1) PROCESS CODES (Enter code)						(2) PROCESS DESCRIPTION- (If a code is not entered in D(1))																	
X	1	K	0	5	4	900	P	T	0	3	D	8	0											
X	2	D	0	0	2	400	P	T	0	3	D	8	0											
X	3	D	0	0	1	100	P	T	0	3	D	8	0											
X	4	D	0	0	2																			Included With Above

10. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES	
				(1) PROCESS CODES (Enter code)	(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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DEPARTMENT OF THE AIR FORCE  
27TH CIVIL ENGINEER SQUADRON (ACC)  
CANNON AIR FORCE BASE NEW MEXICO



Mr. Ronald A. Lancaster  
Chief, Environmental Flight  
506 N DL Ingram Blvd  
Cannon AFB NM 88103-5323

MAY 09 2007

Ms. Cheryl Frischkorn  
HWB-RCRA Permits Management Program  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505

Dear Ms. Frischkorn

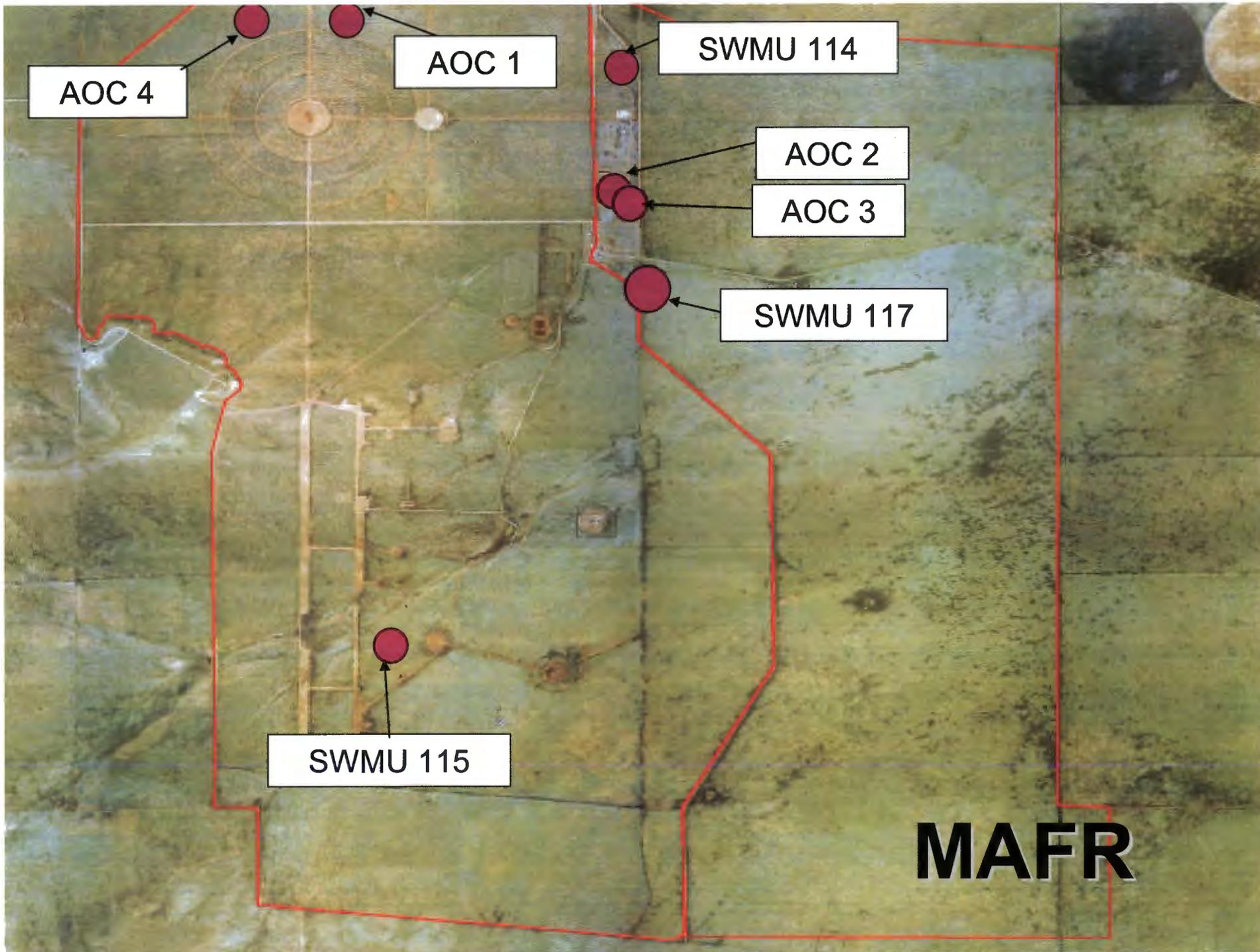
Enclosed for your review is the map of the impact area for Melrose Air Force Range (MAFR). The map will show that the entire 68,000 acres is being used for an impact area. Cannon Air Force Base (CAFB) requests an indefinite deferral of the Work Plan prepared for MAFR since it is an active range and would be considered obsolete.

CAFB will maintain and monitor all areas of Solid Waste Management Units and Areas of Concern at the range in accordance with the NMED Hazardous Waste Permit. If you have any questions regarding this request, please do not hesitate to contact the Restoration Program Manager, Ms. Kristi Doll at 505-784-1098 or email [Kristi.doll@cannon.af.mil](mailto:Kristi.doll@cannon.af.mil).

Sincerely

RONALD A. LANCASTER  
Chief, Environmental Flight

Attachment:  
MAFR Map



AOC 4

AOC 1

SWMU 114

AOC 2

AOC 3

SWMU 117

SWMU 115

**MAFR**



BILL RICHARDSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Telephone (505) 428-2500  
Fax (505) 428-2567  
www.nmenv.state.nm.us



RON CURRY  
SECRETARY

CINDY PADILLA  
DEPUTY SECRETARY

Rec'd CEV  
6-21-07

**CERTIFIED MAIL RETURN RECEIPT REQUESTED**

June 19, 2007

Colonel Scott D. West  
Commander 27<sup>th</sup> Fighter Wing  
100 D.L. Ingram Boulevard  
Cannon Air Force Base, New Mexico 88103-5214

**RE: DEFERMENT FOR THE SUBMITTAL OF THE REVISED  
RCRA FACILITY INVESTIGATION WORK PLAN  
FOR MELROSE AIR FORCE RANGE  
CANNON AIR FORCE BASE, EPA ID NO. NM5572124456-1**

Dear Colonel West:

The New Mexico Environment Department (NMED) received the Department of the Air Force's (Melrose) letter dated May, 9, 2007 regarding deferring submittal of Melrose's response to NMED's May 10, 2007 Notice of Disapproval (NOD) and the requested work plan. The map included in the May 9, 2007 letter shows that the entire 68,000 acres is currently being used as an impact area, making the whole facility an active range.

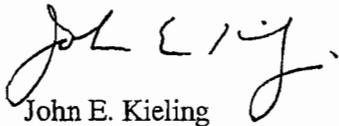
NMED hereby approves the requested deferment of the submittal of a work plan and response to NMED's May 10, 2007 NOD. In lieu of submitting and implementing a work plan for completing investigation and corrective action activities at Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at Melrose Air Force Range, NMED will prepare a "corrective action-only" permit to be implemented once the range is closed, transferring, or transferred.

Colonel West  
June 19, 2007  
Page 2

By December 31, 2007, Melrose must submit an application for a corrective action-only permit. The application must include, but is not limited to, a list including descriptions of all SWMUs and AOCs, owner/operator information, inspection/contingency information, emergency response information, and information regarding range security.

If you have any questions concerning this letter, please contact Cheryl Frischkorn at 505-428-2550.

Sincerely,



John E. Kieling  
Program Manager  
Permit Management Program  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
C. Frischkorn, NMED HWB  
S. Vonteddu, NMED HWB  
K. Doll, CAFB  
Ron Lancaster, CAFB  
File: CAFM (Melrose) 2007 & Reading File

**CANNON AIR FORCE BASE  
RCRA PERMIT APPLICATION – PART "A" ATTACHMENT**

**Prepared for**

**New Mexico Environment Department  
Hazardous Waste Bureau**

December 2007

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## LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AOC	Area of Concern
bgs	below ground surface
C	Celsius
CESQ	cumulative ecological screening quotient
COC	contaminant of concern
COPEC	chemical of potential ecological concern
DCQAP	Data Collection Quality Assurance Plan
DQO	data quality objective
Ebasco	Ebasco Services Incorporated
EEL	estimated exposure level
EPA	U.S. Environmental Protection Agency
ESQ	ecological screening quotient
Foster Wheeler Environmental	Foster Wheeler Environmental Corporation
ft	foot or feet
MDL	method detection limit
Melrose	Melrose Bombing Range
mg/kg	milligrams per kilogram
NMED	New Mexico Environment Department
NOAEL	no-observable-adverse-effects-level
NTU	nephelometric turbidity units
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PCOPEC	preliminary chemical of potential ecological concern
PPE	personal protective equipment
PPM	parts per million
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation

## LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

SLERA	screening-level ecological risk assessment
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TOC	total organic carbon
TRPH	total recoverable petroleum hydrocarbons
TRV	toxicity reference value
USACE	U.S. Army Corps of Engineers
UXO	unexploded ordnance
VOC	volatile organic compound
WQCC	Water Quality Control Commission

## 1. SITE DESCRIPTION AND EXISTING CONDITION

Melrose Air Force Range (MAFR) is an active U.S. Air Force bombing and air-to-ground gunnery range located in Roosevelt and Curry counties, approximately eight miles southwest of Melrose, New Mexico, and 25 miles southwest of Cannon AFB (CAFB). The U.S. Army Air Corps (USACE) used the area for training during World War II. In 1952, the U.S. Air Force (USAF) leased 7,771 acres of grassland for use as a bombing and air-to-ground gunnery range to support Clovis AFB (Kearney 1987). Clovis AFB was renamed CAFB in 1957 in honor of the late General John K. Cannon, former commander of the Tactical Air Command. Melrose was expanded between 1968 and 1972 with the purchase of both the leased land and an additional 14,369 acres (Kearney 1987). The total area of Melrose, including CAFB-owned, public domain, and restricted easement land, is 87,925 acres (USACE 1995). Melrose is a composite day-and-night simulated special and conventional weapons delivery range and a day-only tactical range. Currently live high explosive filled ordnance and practice ordnance are used at the range. Practice ordnance items though designated "practice" can contain small explosive or pyrotechnic spotting charges.

MAFR does not lay within a political jurisdiction requiring evaluation of the area's seismicity per 40 CFR 264 Appendix VI.

There are no flood plain designation maps available for MAFR.

The following site descriptions were taken from the Final Phase 1 RFI Work Plan (Ebasco 1995).

### 1.1 SWMU 114—Expended Ordnance and Industrial Waste Burial Site (Motor Pool Trenches)

Solid Waste Management Unit (SWMU) 114 was used to dispose of military and industrial wastes. SWMU 114 is located in the southeast quarter of the southwest quarter of Section 15 and the northeast quarter of the northwest quarter of Section 22, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-1). The site is sparsely vegetated and the surrounding area is flat with mixed desert scrub that consists of prairie grass and cactus. A Melrose production well is located approximately one-half mile from SWMU 114, where the depth to groundwater was approximately 100 feet (ft) below ground surface (bgs) in 1995.

SWMU 114 is approximately four to six acres in size, which surrounds the former disposal trenches. The SWMU consists of eight unlined former burial trenches that were 20 to 40 ft wide, 100 to 200 ft long, and up to 50 ft deep. A variety of military and industrial wastes from Melrose and Cannon AFB were disposed at the site from 1952 to 1962. Drummed liquids, possibly including unusable fuels, paints, sludge, and solvents, were poured into the trenches and burned. Full drums of liquid may also have been placed in the trenches. Approximately 12,000 to 15,000 pounds of scrap metal from

practice bombs and munitions were disposed of in the trenches every month. Munitions included Mark V and Mark VI (F-84 and F-86) munitions, antiaircraft ordnance (40 millimeter), and approximately 20 to 30 pounds of unexploded ordnance (UXO) residue. Live munitions continued to be buried at SWMU 114 until 1969. The eight trenches were cleared of ordnance over a 2-year period between 2000 and 2002, and signage was posted indicating the trench sites had been cleared.

### **1.2 SWMU 115—Explosives-Contaminated Burial Site (Arroyo Burial Site)**

SWMU 115 was used for the disposal and burial of Unexploded Ordinance (UXO) in 1989. SWMU 115 is located in the northeast quarter of the northeast quarter of Section 33, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-2). The site lies within a small arroyo located in the south-central portion of Melrose. Surface water flows intermittently down a shallow drainage during heavy rains.

All surficial debris was removed from the site between the RCRA Facility Investigation (RFI) field program in 1995 and 2002. The disposal area was 600 ft long, 15 to 20 ft wide, and 15 to 20 ft deep. The contents of SWMU 115 are believed to have consisted entirely of UXO and other exploded ordnance, including 750-pound and 2,000-pound bombs. The SWMU has since been partially backfilled and erosion has filled a majority of the area over time.

### **1.3 SWMU 117—Domestic Waste Burial Site (Southeast of Main Building)**

SWMU 117 is located to the southeast of the main building of the Melrose main operational area. SWMU 117 is located south of the Range entrance road in the northeast quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-3). This low-lying area with a slight topographic depression is most likely a semi-permanent playa that receives surface runoff from surrounding areas.

Domestic waste from the control building and possibly UXO (as suggested by personnel during the September 1994 site visit) were disposed at the site. Domestic wastes disposed at the site included food waste, solid waste, common household items, and possibly paints, solvents, batteries, pesticides, and herbicides. Large quantities of paint were reportedly buried in SWMU 117, but their presence has never been confirmed. The disposal area dimensions covered an area 300 ft by 300 ft.

### **1.4 AOC-1—World War II Cantonment Disposal Site**

Area of Concern (AOC) 1 was a sanitary landfill/disposal site. The area investigated as AOC 1 is located in the northwest quarter of Section 16, Township 1 North, Range 30 East in Roosevelt County, New Mexico, but the exact location is unknown (Figure 2-4). Disposal at AOC 1 occurred across an area of approximately 15 acres. During World War II, this area was used as a cantonment (temporary housing area for troops) dump/sanitary landfill site.

From 1952 to 1960 UXO and other munitions were disposed at the site. The specific types of waste and quantities of waste that were disposed are not known.

### **1.5 AOC-2—Domestic Waste Burial Site (East of Fire Station)**

AOC 2 is located to the east of the Melrose fire station in the northwest quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-5).

AOC 2 was used for the disposal and/or burning of wastes, but the type and volume of disposed waste is unconfirmed. The site was expected to contain domestic waste and possibly, spent fuels, motor oil, batteries, paints, pesticides, and metals, but the geophysical survey and field sampling activities during the 1995 RFI field program did not confirm disposal took place. There is no mention of military munitions disposal in this area in historical documentation.

### **1.6 AOC-3—Disposal/Burn Site (North Helicopter Pad)**

AOC 3 is located north of the former helicopter pad at the Melrose operations area in the northeast quarter of the southwest quarter of Section 22, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-6).

This site was used for burning and/or disposal of waste of unknown type and quantity. Possible wastes include garbage, residue from burning, motor oil, and metals, although the geophysical survey and field sampling activities during the 1995 RFI field program did not confirm disposal took place. There is no mention of military munitions disposal in this area in historical documentation.

### **1.7 AOC-4—Northwest Munitions Disposal Site (Northwest Corner of Impact Area)**

AOC 4 is located in the northwestern corner of the impact area. The site is located in the east-central part of Section 17 with some overlap into Section 16, Township 1 North, Range 30 East in Roosevelt County, New Mexico (Figure 2-7). The site is flat with native scrub vegetation and areas free of vegetation.

AOC 4 was used from 1952 to 1960 for disposal of exploded ordnance and UXO.

## 2. CONTINGENCY PLAN

### 2.1 Plan Review and Submittal

This Plan must be reviewed and evaluated at least once every five years. This Plan must be amended within six months of the review if more effective, field-proven prevention and control technologies that would significantly reduce the likelihood of a discharge are available at the time of the review. If there are any technical amendments to the Plan, then a Professional Engineer must recertify the Plan. Technical amendments include changes to the Plan that require engineering practice such as including physical modifications or changes in facility procedures. If the changes are non-technical in nature (e.g., contact name, phone number, container identification number, etc.), then the facility owner may recertify the Plan and indicate that no technical changes were made.

This Plan must be updated when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge. Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. Movement of containers within an area that does not increase the potential for a discharge would not require an update to the Plan.

An amendment made to the Plan must be prepared within six months of the change in facility operation, and implemented as soon as possible, but not later than six months following preparation of the amendment. The revisions page at the beginning of this Plan must be updated to include all technical and non-technical changes to the Plan.

A report must be submitted to the US EPA Regional Administrator and the state agency managing SPCC programs only if the facility has:

- Discharged more than 1,000 gallons of oil in a single discharge or
- Discharged more than 42 gallons of oil in each of two discharges, occurring within any twelve-month period.

40 CFR 112.4(a) lists the information that must be submitted to the US EPA Regional Administrator no less than 60 days from the date of the discharge that required the submittal. The Regional Administrator or state agency may require that personnel submit the SPCC Plan for review.

## **2.2 Conformance with Federal and State Regulations**

This Plan is in conformance with applicable Federal, State, and local regulations regarding the control and abatement of water pollution. The main purpose of this Plan is to comply with the requirements of 40 CFR 112.

The Petroleum Storage Tank Bureau of the New Mexico Environment Department is responsible for administering Title 20, Chapter 5 of the New Mexico Administrative Code (NMAC) that applies to Petroleum Storage Tanks. The DoD Regional Environmental Coordinator, Region VI (in consultation with both the Air Force Center for Environmental Excellence and United States Air Force legal staff) has advised that "there is no waiver of sovereign immunity under the Resource Conservation and Recovery Act for the regulation of ASTs". The New Mexico Environment Department has been advised that "New Mexico has no legal authority to apply the Proposed Rule at it pertains to ASTs against federal facilities." Therefore Cannon will continue to protect the environment from releases of petroleum products by complying with federal and USAF regulations and New Mexico Groundwater regulations, but will not be bound by 20 NMAC 5 unless sovereign immunity for regulation of ASTs is waived.

## **2.3 Personnel Training**

As required by 40 CFR 112.7(f), (1 and 3), shop supervisors conduct annual training for all oil-handling personnel in spill prevention and response. This training includes a review of this SPCC Plan, applicable pollution control laws, spill response procedures, and the spill history for the facility. Personnel also receive specific training in petroleum product handling procedures and equipment maintenance and operation.

## **2.4 Spill Response**

All accidental spills or spills not "incidental to the process" should be reported to the Base Fire Department by dialing 911. The Fire Department will determine the type of response required. The Fire Department will report the spills to 27 SOCES/CEV. An "incidental to the process spill" is a spill that does not require emergency response and will not harm either personnel or the environment if not controlled or cleaned up.

The organization or individual responsible for the spill will contain, control, and clean-up the spill within their training and resource capability without incurring any undo personnel risk. Spill containment, control, and cleanup beyond the responsible parties capability will be controlled and contained by the Fire Department and cleaned up by SOCES or a SOCES contractor.

27 SOCES/CEV is responsible for reporting spills to the appropriate agency. Spills may be reported to the New Mexico Environment Department, the National Response Center (NRC), Air Force Special Operations Command (AFSOC), and the US EPA. The US EPA does not distinguish between types of oil and (according to 40 CFR 110.6) any spill that causes a sheen upon "navigable waters" or that violates applicable water quality standards must be reported to the NRC.

New Mexico Administrative Code (NMAC) defines a release as any spilling, leaking, emitting, discharging, escaping, leaching or disposing of a regulated substance from a storage tank system into groundwater, surface water or soil. Any release or confirmation of a suspected release must be reported to New Mexico Environment Department within 24 hours by 27 SOCES/CEV. Additional reporting requirements and corrective actions relative to releases can be found in 20.5.12 and 20.5.7 NMAC.

Table 2-1 lists agencies and phone numbers that the SPCC Program Manager may need to contact to report a spill.

**Table 2-1 Spill Reporting Agencies**

<b>Agency</b>	<b>Phone</b>
National Response Center	(800) 424-8802
Report Emergency Spills within 24 hours to NM DPS	(505) 827-9329
Report Non-emergency Spills within 24 hours to NMED	Office: (505) 476-6000 24-hr Voicemail: (505) 476-6000
HQ AFSOC/A7AV	DSN 579-2260
LEPC for Curry County	(575) 763-9485
LEPC for Roosevelt County	(575) 356-6662, Ext 22

The information in Table 2-2 should be available when reporting a spill. Facility response equipment is maintained throughout the facility. The fire department maintains spill response equipment capable of controlling a 500 gallon spill. The fire department may also utilize equipment from 27 SOCES for larger spills. Their spill control materials include absorbent materials, spill booms, drain covers, and other materials. The Cannon AFB Contracting Officer has a procedure for obtaining emergency contractor support.

**Table 2-2 Spill Reporting Information**

<b>Individual Reporting Spill</b>		
<b>Name and Address</b>		Cannon AFB 27 SOCES/CEV 506 N DL Ingram Blvd. Cannon AFB, NM 88103
<b>Phone</b>		
<b>Date and Time of Spill</b>		
<b>Type of material discharged</b>		
<b>Estimate of the total quantity discharged and time/duration of the event</b>		
<b>Name of any waters involved or threatened</b>		
<b>Extent of actual and potential water pollution</b>		
<b>Location of the spill</b>		
<b>The source of the discharge</b>		
<b>Description of all affected media</b>		
<b>Cause of the discharge</b>		
<b>Any damages or injuries caused by the discharge</b>		
<b>Any known or anticipated health risks associated with the incident</b>		
<b>Possible hazards to the environment</b>		
<b>Actions being used to stop, remove, and mitigate the effects of the discharge</b>		
<b>Whether an evacuation may be needed</b>		
<b>The names of individuals and/or organizations who have also been contacted and the time contacted</b>		
<b>Name</b>	<b>Organization</b>	<b>Time of Call</b>

As a Base policy, any Cannon AFB organization that stores or uses more than 25 gallons of a petroleum product or more than the reportable quantity (RQ) of a hazardous substance must prepare a Site Specific Contingency Plan. This plan will identify the oil or hazardous substance used by the organization, the location where the substance is stored and/or used, and the organization's preparations for containing, controlling, reporting, and cleaning up a release of the substance. These plans must be approved by the Environmental Flight Chief (27 SOCES/CEV).

## **2.5 Inspection and Testing**

The SPCC regulations require appropriate inspection and integrity testing of oil storage containers. This Plan incorporates the inspection and testing requirements for regulated containers from applicable industry standards and specifically references Standard SP001-03 issued by the Steel Tank Institute that applies to stationary shop-built tanks.

40 CFR 112.8(c)(6) requires integrity testing for all bulk storage containers. However, EPA has clarified in recent guidance that facilities may provide equivalent environmental protection as allowed under 40 CFR 112.7(a)(2) by conducting monthly visual inspections on certain containers. Containers that qualify for this allowance must be shop-built, aboveground, store non-corrosive materials, have a storage capacity less than 30,000 gallons, and have all sides including the bottom visible for inspection.

Also, 40 CFR 112.8(c)(8)(v) requires verification of liquid level sensors when they are present on bulk storage containers. Facility personnel will test these level sensors monthly.

### **3. FACILITY SECURITY**

This section has been prepared in accordance with 40 CFR 264.14 and 270.14(b) (4).

#### **3.1 Prevention of Unknowing or Unauthorized Entry**

There are two levels of security at MAFR and the SWMU's and AOC's to prevent unknowing and unauthorized contact with hazardous wastes.

- First, there is one entry point to the range cantonment area and range control facility. Individuals desiring access to the range must sign in at the range control facility and be escorted at all times when they are on the range. Proper identification is required of all persons for entry onto the range. This main entry gate is closed and locked when the range is not in operation.
- Second, access to target areas and other portions of the range is controlled by fences and locked gates. During normal duty hours, entry to these areas is by escort only. These gates are locked except when personnel are moving from one portion of the range to another.

#### **3.2 Physical Barriers**

The range is surrounded by a four strand barbed wire fence and this along with the gates and locks constitutes the physical barrier around the range.

#### **3.3 Entry Control**

Range contractor personnel control entry to the area during regular duty hours. Visitors are required to sign into a logbook. Doors to the range control facility are locked during non-duty hours.

#### **3.4 Security Procedures**

The range contractor has established written procedures for physical security. This document describes uniform security standards including barriers, lock and key control, and entry control to be implemented in range facilities.

## 4. EMERGENCY RESPONSE PLAN

The procedures outlined in this attachment apply to all personnel having access or appointed as a custodian to a security container containing classified material. Each individual will be knowledgeable of the contents of this letter and will comply with them in the event of an emergency. These procedures will be posted on the top or side of all security containers.

### **In the event of:**

**A. FIRE:** All classified materiel will be returned to the security container, if possible, and the container locked. If the material cannot be returned to the secured container, the person possessing the material will maintain custody until relieved or the material is secured in an approved security container. If the classified material cannot be removed from the building or the secured container cannot be locked, the Fire Chief will be notified immediately. When the Fire Chief declares the area safe, all classified material or its remains will be secured and 27 SOSFS/SFAI will be notified immediately.

**B. TORNADO OR NATURAL DISASTER:** Upon receiving warning of a tornado or severe weather, all classified material, which is not absolutely mission essential should be secured in a locked security container and the container locked. If the classified material or security container is damaged, scattered, or destroyed by natural forces, every effort will be made to find and secure the material or its remains and contact SFAI for additional guidance. If a container is found following a severe storm damaging the buildings that houses containers, contact SFAI, who maintain a listing of these containers. SFAI will help locate the responsible personnel.

**C. CIVIL DISTURBANCE/TERRORIST ACTIVITY:** All agencies will normally be warned in advance; however, should a disturbance occur without warning, all classified material will be secured in a locked security container immediately. The unit commander of staff agency chief will determine if any additional protection is needed.

**D. EVACUATION:** The installation commander may direct that all classified material be evacuated from MAFR. Regardless of the method used, personnel will ensure that all classified material bagged, boxed, or crated and sealed as appropriate IAW DoD 5200.1-R. An AF Form 310 Document Receipt and Destruction Certificate will be accomplished indicating the number of containers, the highest level of classification inside, and the identity of the sending unit. An Evacuation Officer will be appointed by 27 SOW/CC and will sign for each container.

**E. ENEMY INTRUSION/ACTIVITY:** In the event of enemy intrusion/activity, the installation commander may direct all classified material to be evacuated from MAFR in accordance with all applicable directives and instructions. Evacuation methods to be used will follow DoD 520U. I -R, AFI 31-401.

## 5. SUMMARY OF INVESTIGATIONS

Soil and groundwater were investigated at the seven Melrose sites as part of an RFI conducted in 1995 and supplemental field studies in 2000 and 2002. In addition, sediment and surface water were sampled at one SWMU during the Phase I RFI. Biannual groundwater sampling conducted by the U.S. Geological Survey (USGS) in July and December 2004 to evaluate groundwater quality and water levels at Melrose included wells at SWMU 114 and AOC 2. Table 3-1 lists the media that were sampled at SWMUs 114, 115, and 117 and AOCs 1, 2, 3, and 4 as part of these investigations.

### 5.1 Phase I RFI (1995-1996)

The focus of the initial RFI was to assess potential soil and groundwater contamination at the seven sites and complete a screening-level Human Health Risk Assessment (HHRA). Geophysical and soil gas surveys were performed and the results were used to select locations for soil and groundwater sampling. Surface and subsurface soil samples were collected from all seven sites and sediment samples were collected from one site. Soil and sediment samples were analyzed for the following parameters:

- Volatile organic compounds (VOCs)-U.S. Environmental Protection Agency (EPA) Method 8260
- Semi-volatile organic compounds (SVOCs)-EPA Method 8270
- Pesticides/polychlorinated biphenyls (PCBs)-EPA Method 8080
- Target analyte list (TAL) total metals-EPA Method 6010
- Total mercury-EPA Method 7473
- Total recoverable petroleum hydrocarbons (TRPH)-EPA Methods 9071/418.1
- Total organic carbon (TOC)-EPA Method 9060

Groundwater samples were collected from monitoring wells or open boreholes at five sites (SWMUs 114, 115, AOC 1, AOC 2, and AOC 4) and analyzed for the following parameters:

- VOCs-EPA Method 8260
- SVOCs-EPA Method 8270
- Pesticides/PCBs-EPA Method 8080
- Herbicides-EPA Method 81 50
- Explosives-EPA Method 8330
- Dioxins/furans-EPA Method 8280

- TAL total metals-EPA Method 6010
- Total mercury-EPA Method 7470
- Anions-EPA Methods 300.0 and 353.2
- Alkalinity-EPA Method 310.1
- TRPH-EPA Methods 9071/418.1
- Cyanide-EPA Method 9010
- Sulfide-EPA Method 376.1

One surface water sample was collected and analyzed for TAL metals and explosives.

Soil and groundwater samples were also collected from background locations throughout Melrose.

The analytical results showed that low-level concentrations of metals occurred in both soil and groundwater at concentrations exceeding background and maximum contaminant levels (MCLs), respectively. The results of the screening-level HHRA indicated no significant risk under either residential or industrial worker land-use scenarios (Ebasco 1996).

## **5.2 Supplemental Groundwater Sampling and Evaluation (2000)**

The purpose of the May 2000 field program was to sample the 15 existing monitoring wells at Melrose to supplement the 1995 RFI data. All 15 wells were gauged, but only 9 of the wells contained enough water to permit sampling. Samples were collected from wells at SWMU 114, AOC 1, and AOC 2. Samples were analyzed for the following parameters:

- VOCs-EPA Method 8260
- Explosives-EPA Method 8330
- TAL total metals-EPA Method 6010
- Total mercury-EPA Method 7040
- Anions (nitrate nitrogen, chloride, fluoride, sulfate)-EPA Method 300.0
- Cyanide-EPA Method 9010A

No groundwater samples were collected at SWMU 117 from monitoring wells MI17MW001, MI17MW002, MI17MW003, and MI17MW004, because only wet sediments were present at the bottom of the wells. The groundwater monitoring well at AOC 3 was dry at the time of installation/development and sampling in 1995, and it was dry in May 2000. At SWMU 115 and AOC 4, no groundwater samples were collected because the open boreholes sampled for groundwater in 1995 were backfilled with grout and abandoned during the RFI field program.

Analytical data were presented to Cannon AFB in July 2000 (Foster Wheeler Environmental 2000) so that the purge water could be characterized.

### **5.3 Phase I RFI Addendum (2002)**

An addendum to the 1995 Phase I RFI was prepared in response to comments received from New Mexico Environmental Department (NMED). A supplemental field sampling program was conducted in June 2002. The objectives of the June 2002 field program, which involved additional soil sampling at seven sites, were to supplement existing data generated during the 1995 RFI field program and to support the facility-wide Screening-level Ecological Risk Assessment (SLERA).

Surface (0- to 0.5-ft depth interval) and near-surface soil (1- to 2-ft depth interval) samples were collected at 15 locations distributed across the seven sites. Soil samples were analyzed for the following parameters:

- VOCs (subsurface samples only)-EPA Method 8260B
- SVOCs-EPA Method 8270D
- TAL metals-EPA Method 6010B
- Total mercury-EPA Method 7471
- Explosives-EPA Method 8330

The results of this sampling event and data collected during the 1995 Phase I RFI field program were used to evaluate ecological risk at each of the seven sites.

### **5.4 Groundwater Sampling (2004)**

The USGS, in cooperation with the USAF, performed a groundwater characterization at Melrose in 2002-2003 to provide baseline water quality and flow properties of the local aquifer (USAF 2004, 2005). Groundwater monitoring in 2004 was performed at nine monitoring wells, including wells at SWMU 114 and AOC 1, to provide additional characterization data. Groundwater samples were analyzed for the following parameters:

- VOCs-EPA Method 8260B
- SVOCs-EPA Method 8270C
- Organochloride pesticides-EPA Method 8181A
- Organophosphorus pesticides-EPA Method 8141A
- Metals-EPA Method 6020
- Mercury-EPA Method 7470A
- General chemistry parameters-EPA Methods 6010B, 9060, 9030B, 8321A and Methods 300.0A, 310.1, 160.1, 365.3, 350.1, and 353.2.

## **5.5 EOD Clearance Activities (2005)**

As part of a Base-initiated risk-based management decision, CAFB Explosive Ordnance Disposal (EOD) personnel conducted a visual surficial sweep and cleanup of all debris present at SWMUs 114,115, and 117 and AOCs 1, 2, 3, and 4 on April 18, 2005. No ordnance was found at any of the seven sites.

As noted during the Phase I RFI, munitions-related debris was present at SWMUs 114, 115, and AOC 4. Since the 1995 RFI during regularly scheduled maintenance of the facility, these sites were cleared of ordnance and surficial debris. Based on observations made during the 2002 RFI supplemental sampling program, all seven sites were noticeably cleared of surface debris that was present during the 1995 and 2000 sampling programs.

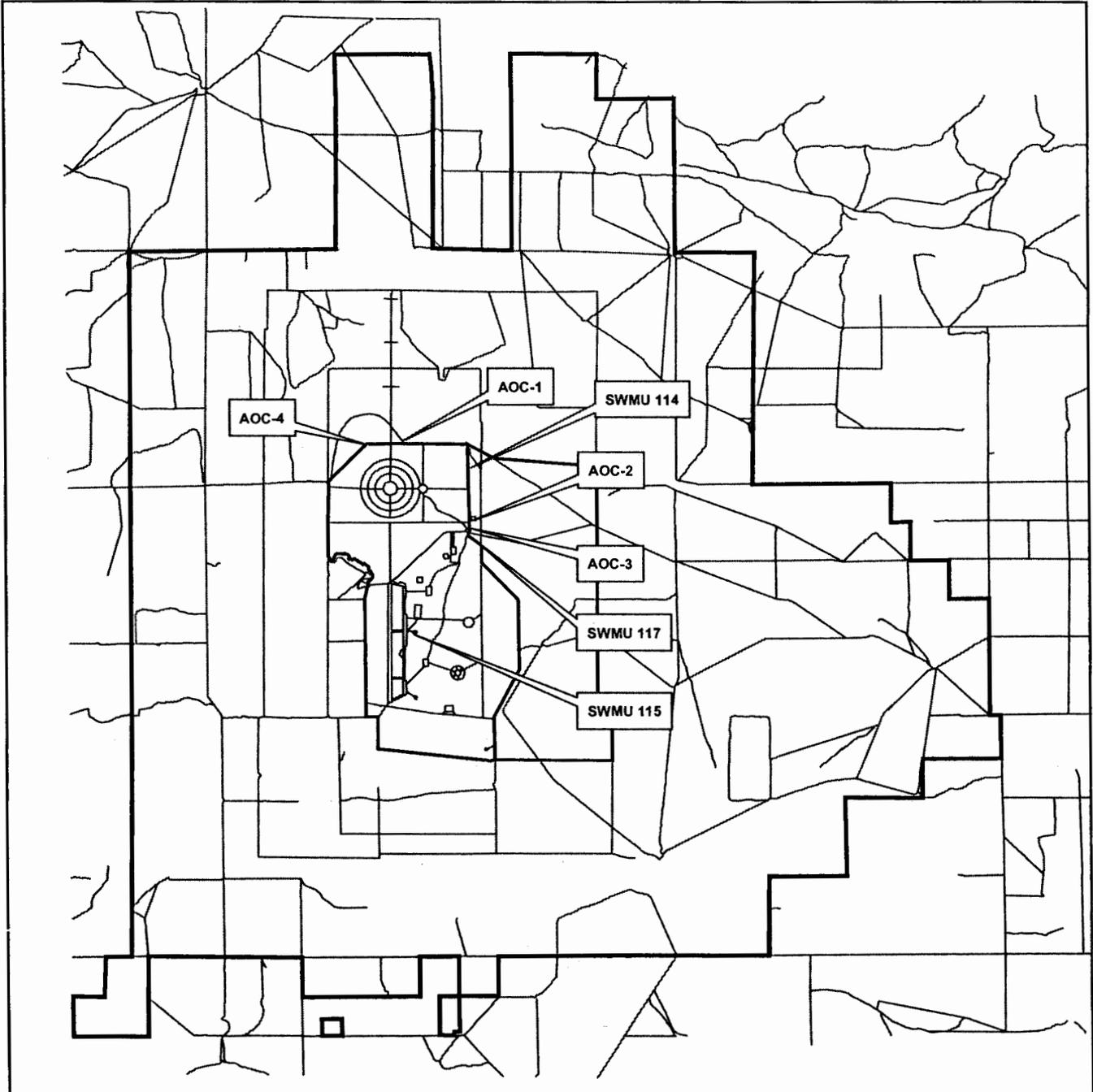
## 6. CONCLUSIONS AND RECOMMENDATIONS

### 6.1 Groundwater Quality

No organic compounds were detected at concentrations above Water Quality Control Commission (WQCC) Groundwater Standards during the 2006 or 2007 sampling events. Of the metals detected in groundwater only aluminum, barium, cadmium, chromium, cobalt, iron, manganese, nickel, and selenium were detected above WQCC Groundwater Standards. Due to the cation-exchange capacity of the surface and near surface soil in the area, the alkaline nature of deeper subsurface calcareous bedrock, and the low solubility of metals, migration of metals from the disposal site to groundwater is unlikely. The occurrences of metals detected in the turbid groundwater sampled at Melrose probably reflect natural conditions. Anions detected above the WQCC Groundwater Standard include chloride and sulfate, and like metals, probably reflect natural conditions.

### 6.2 Recommendations

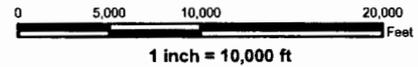
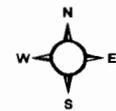
For the foreseeable future, Melrose will continue to operate as an active bombing range. Each site has been investigated and human health and ecological risk for each site was evaluated. No future waste disposal or storage activities will take place in any of the SWMUs or AOCs. Although SWMUs 114, 115, and 117 and AOCs 1, 2, 3, and 4 remain within the impact area of the Range, ongoing maintenance will take place to ensure the cleanup of any incidental ordnance associated with active bombing practice.



- IMPACT AREA
- STREETS AND ROADS
- MELROSE BOMBING RANGE BOUNDARY

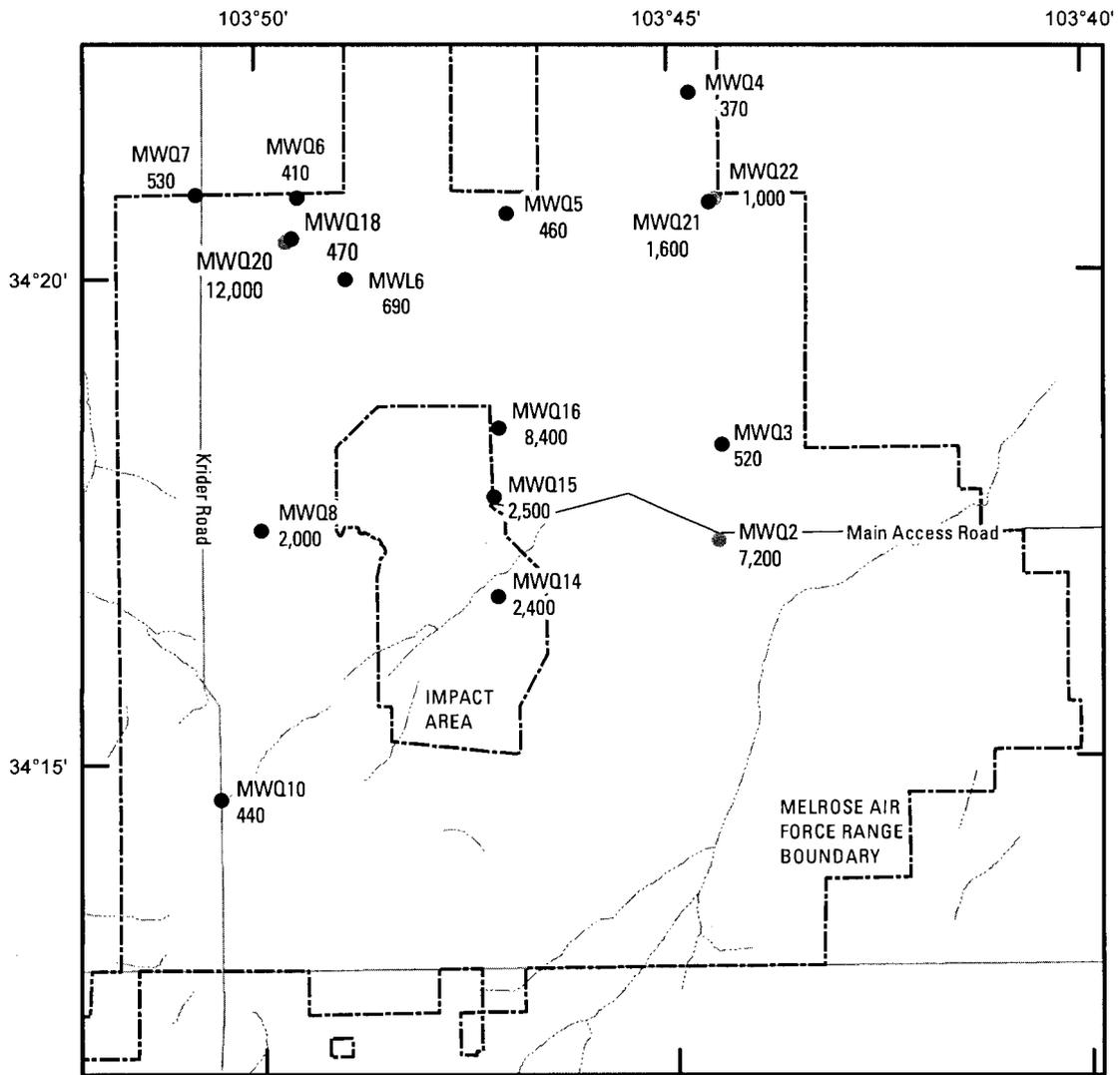
**NOTES:**

Coordinate System: NAD 27 New Mexico State Plane, East Zone, U.S. Foot

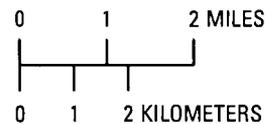


**MELROSE BOMBING RANGE  
VCA REPORT**

**FIGURE 1-2  
SITE LOCATION MAP**



Base from U.S. Geological Survey digital data, 1994, 1:100,000  
 Universal Transverse Mercator Zone 13N, NAD 83

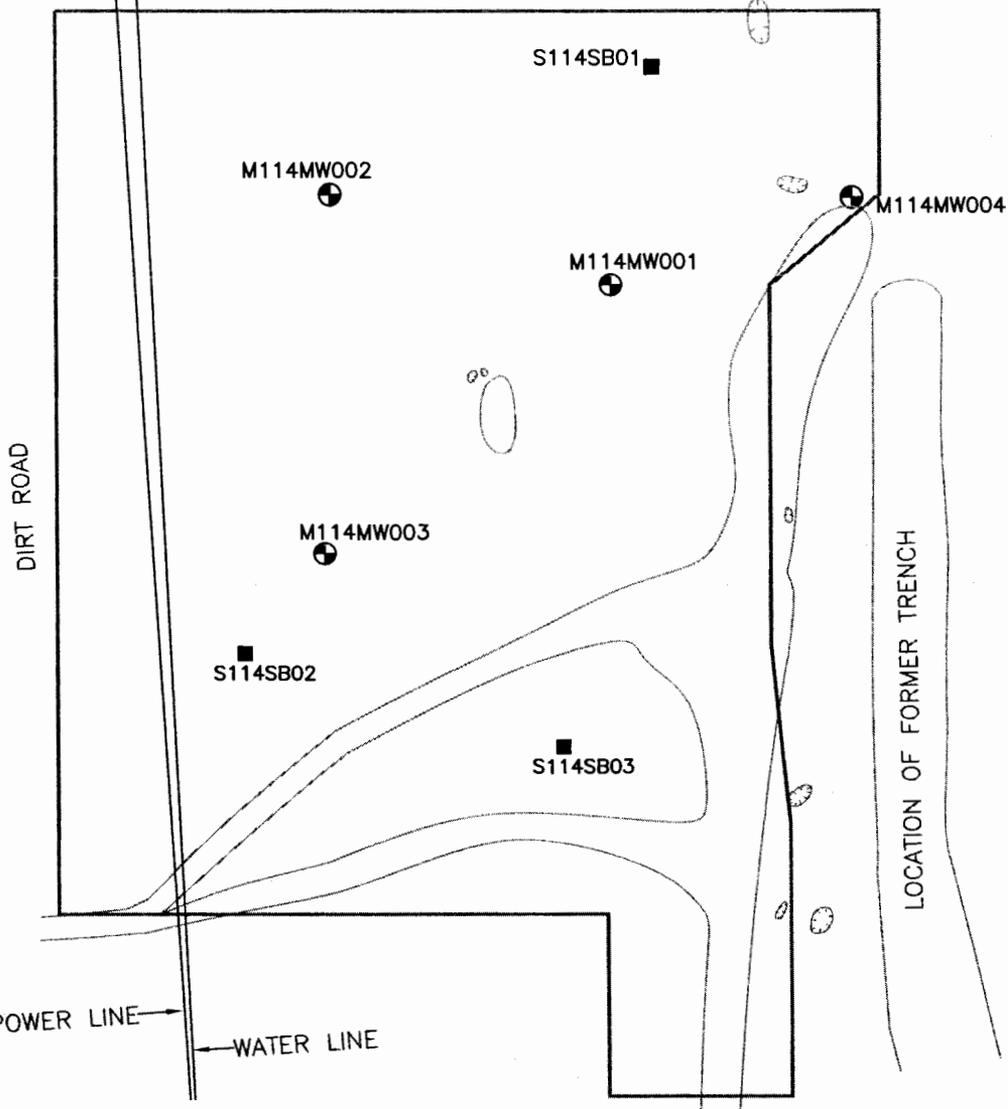


**EXPLANATION**

- MWQ10 440 Well—Top characters are well site identifier and bottom number is the total dissolved solids concentration in milligrams per liter
- Well completed in Ogallala Formation
- Well completed in Dockum Group

**Figure 2.** Dissolved-solids concentrations in ground water at Melrose Air Force Range, June 2007.

POWER LINE  
WATER LINE



**LEGEND:**

— RFI Investigation Area

☪ Depression

M114MW001

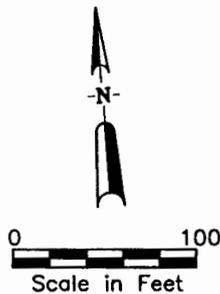
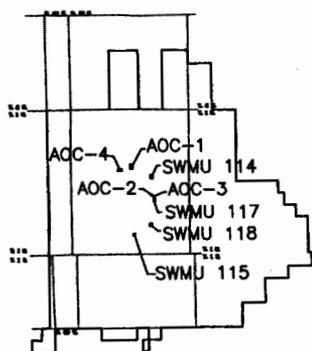
⊕ Monitoring Well Location

S114SB01

■ Soil Sample Location (2002)

Note: Geophysical and soil gas survey conducted over entire site (1995).

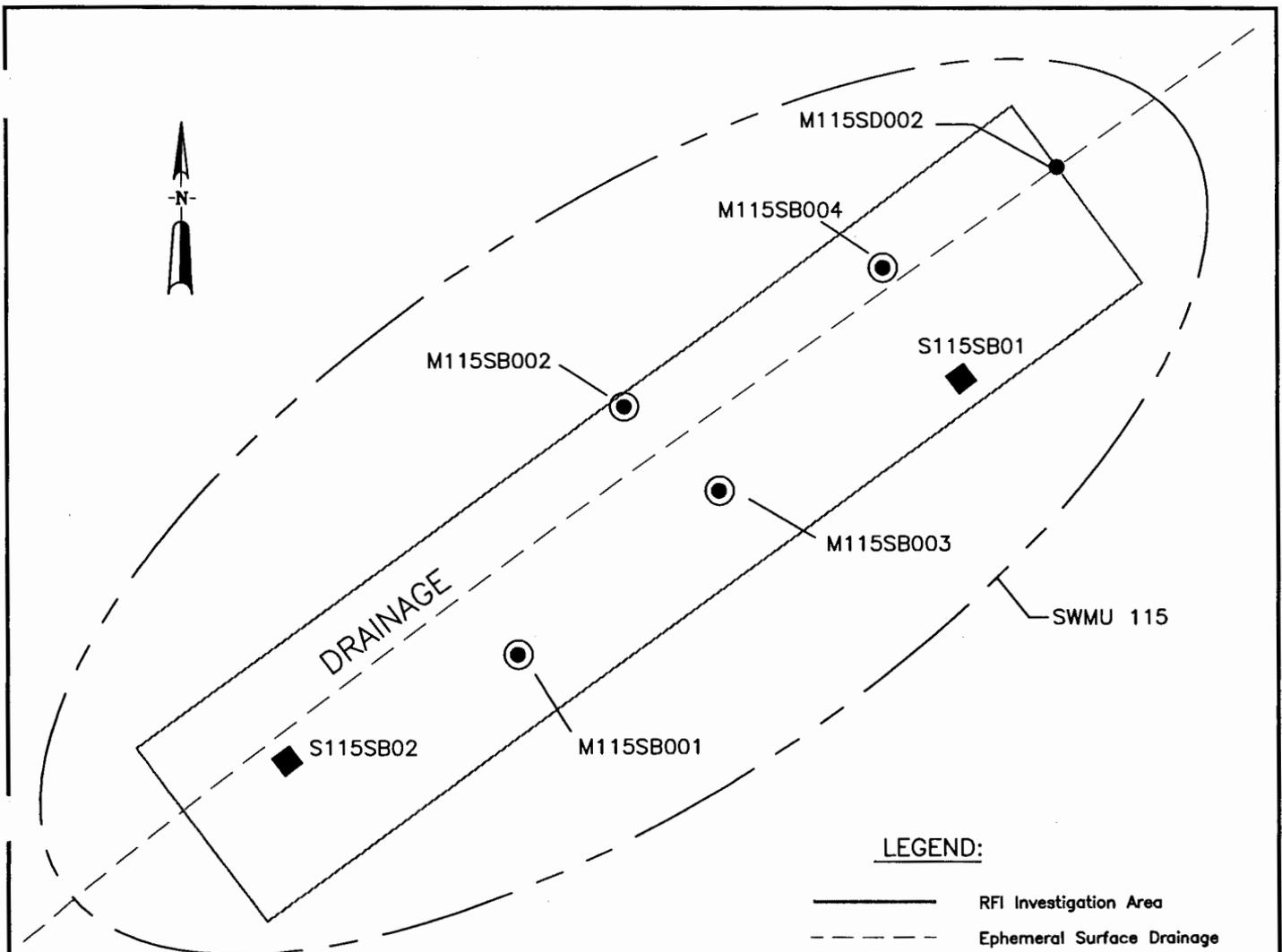
**INDEX MAP**



DATE: 11/04/05  
 SCALE: 1:100  
 DRAWN: AML

**FIGURE 2-1  
SWMU 114 SITE MAP**

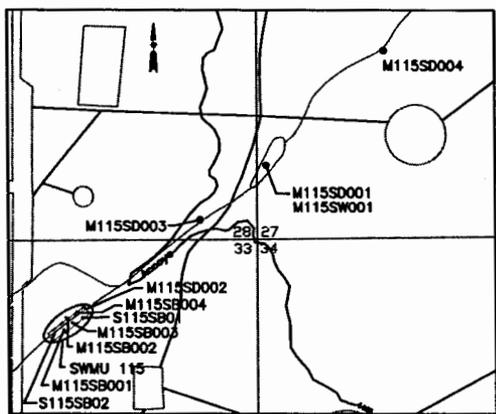
U.S. ARMY CORPS OF ENGINEERS, CHAMPAIGN DISTRICT  
MELROSE BOMBING RANGE  
CAMDEN AIR FORCE BASE



**LEGEND:**

- RFI Investigation Area
- - - - - Ephemeral Surface Drainage
- M115SB003  
● Borehole Location (1995)
- S115SB01  
■ Soil Sample Location (2002)
- M115SD002  
● Surface Water/Sediment Sample Location (1995)

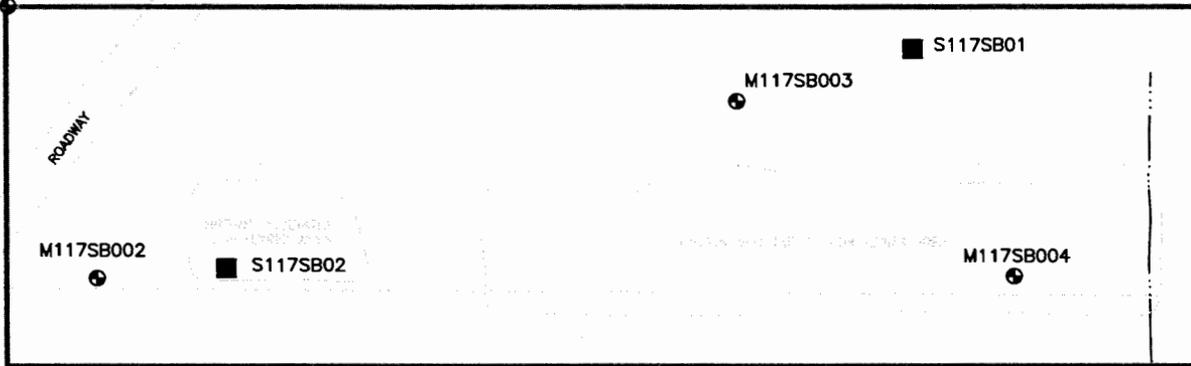
**SEDIMENT AND SURFACE WATER SAMPLE LOCATIONS**



DATE: 05/01/06  
SCALE: 1:75  
DRAWN: WDD

**FIGURE 2-2  
SWMU 115 SITE MAP**  
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT  
MELROSE BOMBING RANGE  
CANNON AIR FORCE BASE

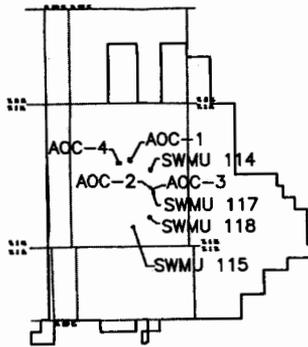
M117SB001



**LEGEND:**

- RFI Investigation Area
- - - - Fence
- - - - Surface Drainage
- M117SB004
- ⊕ Monitoring Well Location
- S117SB01
- Soil Sample Location (2002)

**INDEX MAP**

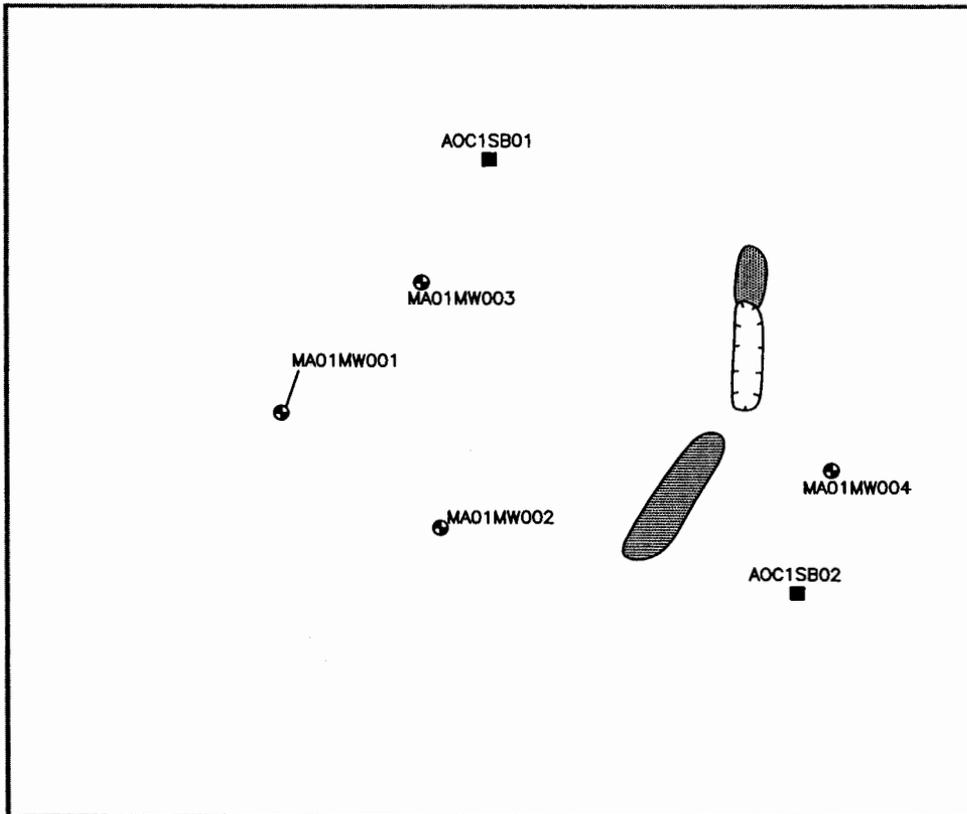


Note: Geophysical and soil gas survey conducted over entire site (1995).

P:\WAYNES PLOT\APDA\ RELEASE VOA REPORT\WAFT REPORT\FIGURE 2-3.DWG  
JY 04 2005

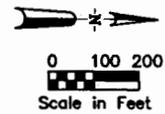
DATE:	11/04/05
SCALE:	1:100
DRAWN:	AML

**FIGURE 2-3**  
**SWMU 117 SITE MAP**  
U.S. ARMY CORPS OF ENGINEERS, OHAMA DISTRICT  
SELWICK BOMBING RANGE  
GARDNER AIR FORCE BASE

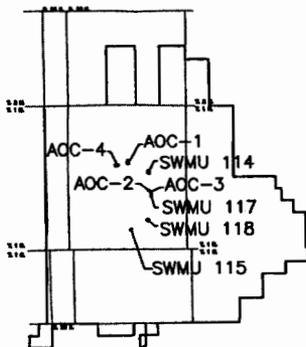


**LEGEND**

- RFI Investigation Area
- ◌ Former Depression
- ◌ Former Mound
- ⊕ Monitoring Well Location
- Soil Sample Location (2002)



**INDEX MAP**



**NOTES**

1. Geophysical and soil gas survey conducted over entire site (1995).
2. The mounds and the depression previously documented at this site are no longer visible at the surface.

DATE: 05/01/06  
 SCALE: 1:200  
 DRAWN: WDD

**FIGURE 2-4  
 AOC 1 SITE MAP**

U.S. ARMY CORPS OF ENGINEERS, OHAMA DISTRICT  
 WELLSVILLE DISTRICT  
 CANNON AIR FORCE BASE



0 40  
Scale in Feet

AOC2SB01



GATE

DIRT ROAD

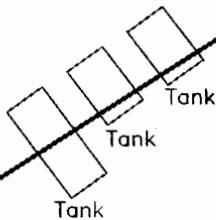
AOC2SB02



MA02MW001S



MA02MW001D



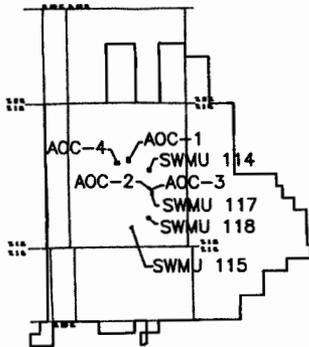
LEGEND

- RFI Investigation Area
- MA02MW001  Monitoring Well Location
- AOC2SB01  Soil Sample Location (2002)

NOTES

1. Geophysical and soil gas survey conducted over entire site (1995).
2. The three aboveground storage tanks located in the southern part of the site were installed after previous use of the AOC2 and are not included as part of this regulated unit.

INDEX MAP

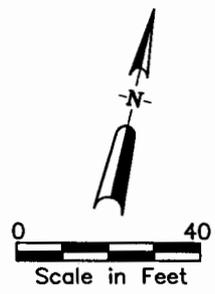
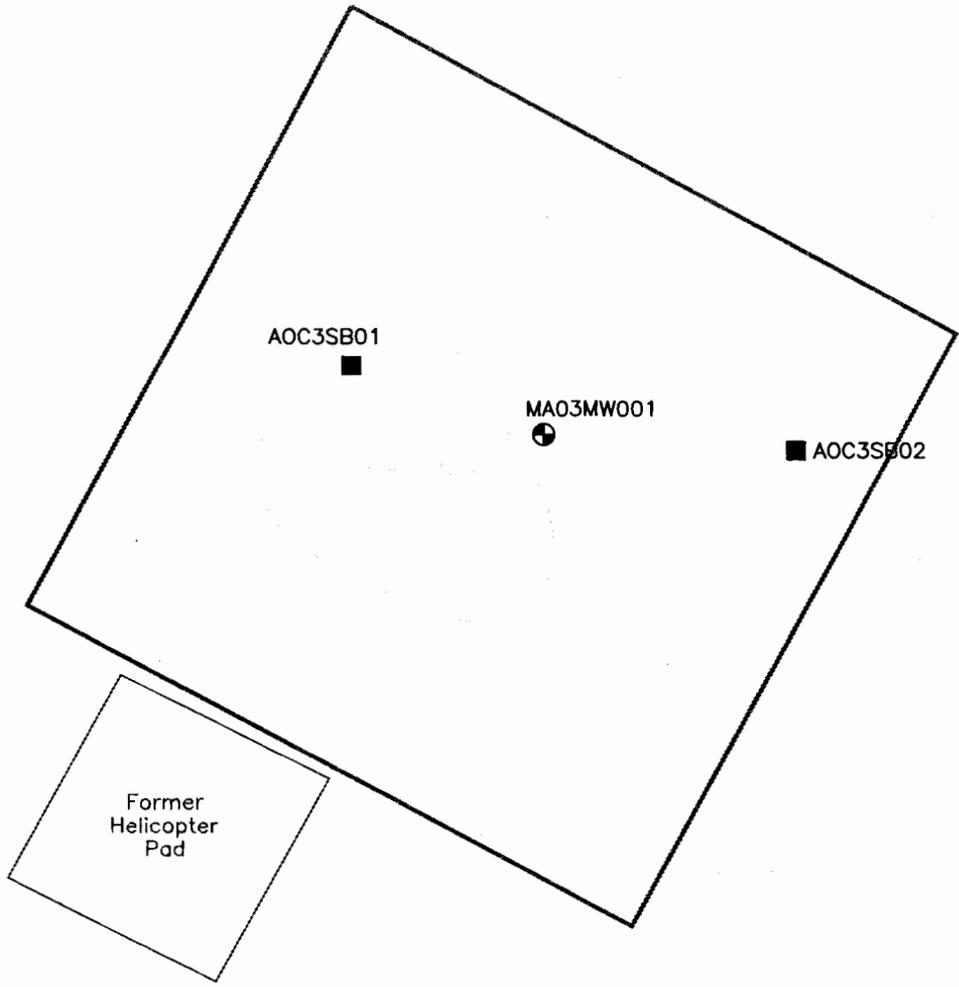


DATE: 05/01/06  
SCALE: 1:40  
DRAWN: WDD

FIGURE 2-5  
AOC 2 SITE MAP

U.S. ARMY CORPS OF ENGINEERS, OHAMA DISTRICT  
WELBORN BOASTING RANGE  
CROOKER AIR FORCE BASE

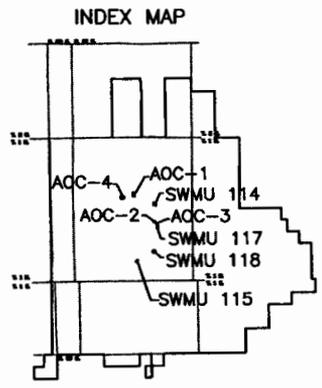
RELINQUISH NCA REPORT DRAFT REPORT VOLUME 2-0.DWG  
P:\BAYNES\ PLOT\A\A...  
JY 04 2005



**LEGEND:**

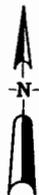
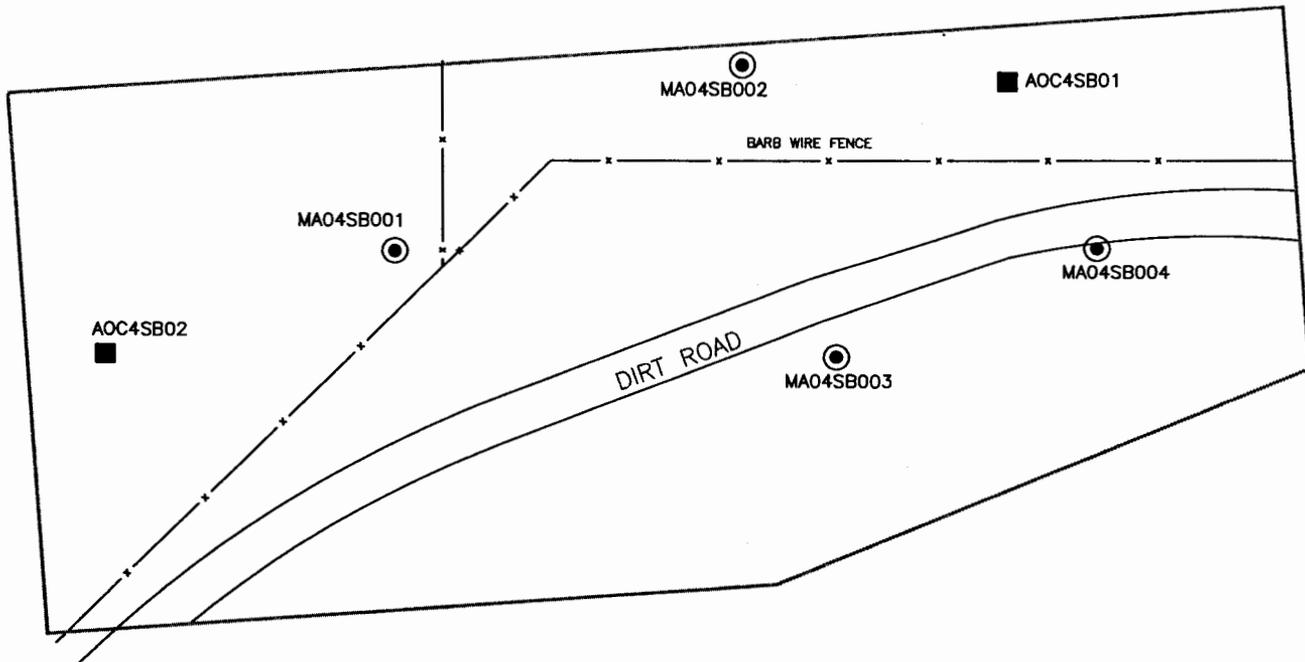
- RFI Investigation Area
- MA03MW001  Monitoring Well Location
- AOC3SB01  Soil Sample Location (2002)

Note: Geophysical and soil gas survey conducted over entire site (1995).



DATE: 11/04/05  
SCALE: 1:40  
DRAWN: AML

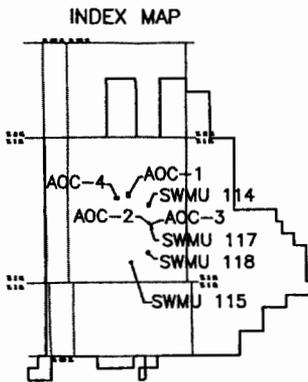
FIGURE 2-6  
AOC 3 SITE MAP  
U.S. ARMY CORPS OF ENGINEERS, DAKOTA DISTRICT  
RELINQUISH NCA REPORT DRAFT  
CAMPBELL AIR FORCE BASE



**LEGEND:**

- RFI Investigation Area
- Fence
- Road
- MAO4SB003 Borehole Location (1995)
- AOC4SB01 Soil Sample Location (2002)

Note: Geophysical and soil gas survey conducted over entire site (1995).



DATE: 11/04/05  
SCALE: 1:100  
DRAWN: AML

FIGURE 2-7  
AOC 4 SITE MAP

U.S. ARMY CORPS OF ENGINEERS, CHAMPAIGN DISTRICT  
MILWAUKEE DISTRICT OFFICE  
CANNON AIR FORCE BASE

**Table 1.** Summary of field properties of ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico.

[°C, degrees Celsius;  $\mu\text{S/cm}$ , microsiemens per centimeter;  $\text{mg/L}$ , milligrams per liter; NTU, nephelometric turbidity units; NA, parameter not recorded]

Sample ID:	MWQ2	MWQ3	MWQ4	MWQ5
Sample date & time:	6/18/2007 1620	6/18/2007 1235	6/19/2007 1120	6/19/2007 1320
Analytes	Result	Result	Result	Result
<i>Field Properties</i>				
Temperature (°C)	28.6	19.2	18.4	18.4
pH	7.56	7.50	7.47	7.54
Specific conductance ( $\mu\text{S/cm}$ )	11,960	796	584	679
Dissolved oxygen (mg/L)	0.32	6.52	7.10	6.11
Turbidity (NTU)	54.5	0.79	NA	0.07

Sample ID:	MWQ6	MWQ7	MWQ8	MWQ10
Sample date & time:	6/20/2007 1205	6/19/2007 1445	6/20/2007 1540	6/20/2007 1410
Analytes	Result	Result	Result	Result
<i>Field Properties</i>				
Temperature (°C)	18.6	19.4	21.6	19.9
pH	7.30	7.53	7.19	7.20
Specific conductance ( $\mu\text{S/cm}$ )	578	769	3,280	639
Dissolved oxygen (mg/L)	4.80	6.49	0.31	6.74
Turbidity (NTU)	3.50	0.35	258	0.09

**Table 1.** Summary of field properties of ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—concluded.

[°C, degrees Celsius;  $\mu\text{S/cm}$ , microsiemens per centimeter;  $\text{mg/L}$ , milligrams per liter; NTU, nephelometric turbidity units]

Sample ID:	MWQ14	MWQ15	MWQ16	MWQ18
Sample date & time:	6/22/2007 0900	6/21/2007 1105	6/21/2007 1350	6/20/2007 1305
Analytes	Result	Result	Result	Result
<i>Field Properties</i>				
Temperature (°C)	20.2	28.9	32.6	20.2
pH	7.67	6.40	6.79	7.34
Specific conductance ( $\mu\text{S/cm}$ )	3,810	7,540	12,171	667
Dissolved oxygen (mg/L)	4.59	0.23	2.87	6.16
Turbidity (NTU)	1.44	0.62	2.02	0.39

Sample ID:	MWQ20	MWQ21	MWQ22	MWL6
Sample date & time:	6/20/2007 1105	6/19/2007 1040	6/19/2007 1215	6/19/2007 1450
Analytes	Result	Result	Result	Result
<i>Field Properties</i>				
Temperature (°C)	21.0	19.1	21.4	23.3
pH	7.45	6.79	7.33	7.20
Specific conductance ( $\mu\text{S/cm}$ )	18,440	2,130	1,777	971
Dissolved oxygen (mg/L)	0.29	4.14	0.23	4.92
Turbidity (NTU)	12.4	1.98	3.29	17.2

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico.

[**RL**, reporting limit; **mg/L**, milligrams per liter; **J**, the associated method blank contained the target analyte at a reportable limit; **B**, estimated concentration–detected below the reporting limit; **Q**, Reporting limit is elevated due to high analyte levels; **G**, The reporting limit is elevated due to matrix interference; **ND**, not detected]

Sample ID: Sample date & time:	MWQ2 6/18/2007 1620		MWQ3 6/18/2007 1235		MWQ3-2 6/18/2007 1240		MWQ4 6/19/2007 1120	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Major Ions (mg/L)</i>								
Calcium, SW6010B	190 J	0.2	31 J	0.2	30 J	0.2	42 J	0.2
Magnesium, SW6010B	120	0.2	33	0.2	32	0.2	19	0.2
Potassium, SW6010B	9.8	3	5.9	3	5.9	3	2.9 B	3
Sodium, SW6010B	2,300	5	82	5	82	5	52	5
Alkalinity, MCAWW310.1	66 J	5.0	150 J	5.0	150 J	5.0	190 J	5.0
Chloride, MCAWW300.0A	3,400 Q	300	65 Q	15	63 Q	15	19	3.0
Sulfate, MCAWW300.0A	1,500 Q	500	150 Q	25	150 Q	25	63 Q	25
<i>Other Major Elements (mg/L)</i>								
Boron, SW6010B	1.6	0.1	0.22	0.1	0.22	0.1	0.16	0.1
Bromide, MCAWW300.0A	7.2 G	1.0	0.56 B,G	1.0	0.37	0.20	0.17 B	0.20
Fluoride, MCAWW300.0A	ND G	2.5	1.0 B,G	2.5	2.0	0.50	1.4	0.50
Lithium, SW6010B	0.45	0.01	0.088	0.01	0.089	0.01	0.037	0.01
Silica, SW6010B	8.5	1.1	33	1.1	32	1.1	39	1.1
Strontium, SW6010B	11	0.01	1.9	0.01	1.9	0.01	0.83	0.01
<i>General Chemistry (mg/L)</i>								
Dissolved Solids, MCAWW160.1	7,200 Q	100	520	10	520	10	370	10
Ammonia as N, MCAWW350.1	0.35	0.10	0.051 B	0.10	0.059 B	0.10	0.052 B	0.10
Nitrate & Nitrite, MCAWW353.2	ND	0.10	0.95	0.10	0.90	0.10	5.1	0.10
Organic Carbon, SW9060	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Phosphorous, MCAW365.3	ND	0.050	0.0079 B	0.050	0.010 B	0.050	0.0070 B	0.050
Sulfide, SW9030B/9034	1.7 B	4.0	1.5 B	4.0	1.6 B	4.0	1.3 B	4.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[**RL**, reporting limit; **µg/L**, micrograms per liter; **ND**, not detected; **B**, estimated concentration—detected below the reporting limit; **J**, the associated method blank contained the target analyte at a reportable limit]

Sample ID: Sample date & time:	MWQ2 6/18/2007 1620		MWQ3 6/18/2007 1235		MWQ3-2 6/18/2007 1240		MWQ4 6/19/2007 1120	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Trace Elements and Compounds (µg/L)</i>								
Aluminum, SW6010B	ND	100	ND	100	ND	100	27 B	100
Antimony, SW6020	0.22 B	4.0	ND	2.0	ND	2.0	ND	2.0
Arsenic, SW6020	4.3 B	10	9.5	5.0	9.5	5.0	6.9	5.0
Barium, SW6020	25	2.0	25	1.0	25	1.0	40	1.0
Cadmium, SW6020	0.11 B	2.0	ND	1.0	ND	1.0	ND	1.0
Chromium, SW6020	1.4 B	4.0	1.4 B	2.0	1.4 B	2.0	1.1 B	2.0
Cobalt, SW6020	8.4	2.0	0.19 B	1.0	0.22 B	1.0	0.30 B	1.0
Copper, SW6020	3.3 B	4.0	2.4	2.0	1.6 B	2.0	8.3	2.0
Iron, SW6010B	38 B,J	100	29 B,J	100	22 B,J	100	100 J	100
Lead, SW6020	ND	2.0	0.29 B	1.0	0.19 B	1.0	0.49 B	1.0
Manganese, SW6020	350	2.0	0.63 B	1.0	0.54 B	1.0	1.0	1.0
Molybdenum, SW6020	26	4.0	5.7	2.0	5.5	2.0	2.9	2.0
Nickel, SW6020	22	4.0	4.5	2.0	4.9	2.0	6.5	2.0
Selenium, SW6020	7.1 B	10	5.9	5.0	7.1	5.0	4.0 B	5.0
Uranium, SW6020	0.89 B	2.0	6.5	1.0	6.2	1.0	6.0	1.0
Vanadium, SW6020	ND	10	74	5.0	75	5.0	56	5.0
Zinc, SW6020	5.0 B	20	7.8 B	10	7.3 B	10	14	10
Perchlorate, SW6860	ND	0.10	8.2	2.0	8.8	2.0	3.1	0.50
<i>Anthropogenic Compounds (µg/L)</i>								
Toluene, SW8260B	0.39 B	1.0	ND	1.0	ND	1.0	ND	1.0
Caprolactam, SW8270C	10 B	20	ND	20	ND	20	ND	20

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[**RL**, reporting limit; **mg/L**, milligrams per liter; **J**, the associated method blank contained the target analyte at a reportable limit; **B**, estimated concentration—detected below the reporting limit; **Q**, Reporting limit is elevated due to high analyte levels; **G**, The reporting limit is elevated due to matrix interference; **ND**, not detected]

Sample ID: Sample date & time:	MWQ5		MWQ6		MWQ7		MWQ8	
	6/19/2007	1320	6/20/2007	1205	6/19/2007	1445	6/20/2007	1540
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Major Ions (mg/L)</i>								
Calcium, SW6010B	42 J	0.2	37 J	0.2	54 J	0.2	46 J	0.2
Magnesium, SW6010B	22	0.2	18	0.2	23	0.2	17	0.2
Potassium, SW6010B	2.9 B	3	2.3 B	3	2.3 B	3	3.6	3
Sodium, SW6010B	64	5	56	5	67	5	660	5
Alkalinity, MCAWW 310.1	170 J	5.0	160 J	5.0	150 J	5.0	290 J	5.0
Chloride, MCAWW300.0A	24	3.0	17	3.0	50	3.0	490 Q	60
Sulfate, MCAWW300.0A	110 Q	25	85 Q	25	160 Q	25	660 Q	100
<i>Other Major Elements (mg/L)</i>								
Boron, SW6010B	0.2	0.1	0.15	0.1	0.16	0.1	1.3	0.1
Bromide, MCAWW300.0A	0.19 B	0.20	0.14 B	0.20	0.28	0.20	3.0 G	0.40
Fluoride, MCAWW300.0A	2.5	0.50	2.8	0.50	1.3	0.50	2.4 G	1.0
Lithium, SW6010B	0.060	0.010	0.063	0.01	0.068	0.01	0.11	0.01
Silica, SW6010B	48	1.1	49	1.1	53	1.1	8.5	1.1
Strontium, SW6010B	1.0	0.01	0.8	0.01	0.96	0.01	1.30	0.01
<i>General Chemistry (mg/L)</i>								
Dissolved Solids, MCAWW160.1	460	10	410	10	530	10	2,000	10
Ammonia as N, MCAWW350.1	0.052 B	0.10	0.046 B	0.10	0.057 B	0.10	0.63	0.10
Nitrate & Nitrite, MCAWW353.2	6.5	0.10	4.8	0.10	1.7	0.10	0.022 B	0.10
Organic Carbon, SW9060	ND	1.0	ND	1.0	0.19 B	1.0	1.2	1.0
Phosphorous, MCAWW365.3	ND	0.050	0.0082 B	0.050	0.0079 B	0.050	0.086	0.050
Sulfide, SW9030B/903	0.83 B	4.0	1.1 B	4.0	1.2 B	4.0	0.77 B	4.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[RL, reporting limit;  $\mu\text{g/L}$ , micrograms per liter; ND, not detected; B, estimated concentration—detected below the reporting limit; J, the associated method blank contained the target analyte at a reportable limit]

Sample ID: Sample date & time:	MWQ5 6/19/2007 1320		MWQ6 6/20/2007 1205		MWQ7 6/19/2007 1445		MWQ8 6/20/2007 1540	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Trace Elements and Compounds (<math>\mu\text{g/L}</math>)</i>								
Aluminum, SW6010B	ND	100	ND	100	ND	100	46 B	100
Antimony, SW6020	0.11 B	2.0	ND	2.0	ND	2.0	ND	2.0
Arsenic, SW6020	7.0	5.0	6.2	5.0	5.4	5.0	4.3 B	5.0
Barium, SW6020	30	1.0	30	1.0	28	1.0	19	1.0
Cadmium, SW6020	ND	1.0	ND	1.0	ND	1.0	0.042 B	1.0
Chromium, SW6020	1.1 B	2.0	1.7 B	2.0	1.1 B	2.0	1.8 B	2.0
Cobalt, SW6020	0.15 B	1.0	0.28 B	1.0	0.21 B	1.0	4.2	1.0
Copper, SW6020	1.2 B	2.0	1.3 B	2.0	3.9	2.0	1.6 B	2.0
Iron, SW6010B	88 B,J	100	83 B,J	100	50 B,J	100	96 B,J	100
Lead, SW6020	ND	1.0	ND	1.0	0.59 B	1.0	0.26 B	1.0
Manganese, SW6020	ND	1.0	1.1	1.0	0.46 B	1.0	390	1.0
Molybdenum, SW6020	4.2	2.0	2.4	2.0	5.0	2.0	14	2.0
Nickel, SW6020	2.7	2.0	6.5	2.0	3.2	2.0	9.2	2.0
Selenium, SW6020	3.5 B	5.0	3.3 B	5.0	4.5 B	5.0	12	5.0
Uranium, SW6020	5.0	1.0	3.7	1.0	3.4	1.0	2.5	1.0
Vanadium, SW6020	65	5.0	58	5.0	52	5.0	1.6 B	5.0
Zinc, SW6020	8.4 B	10	31	10	11	10	5.3 B	10
Perchlorate, SW6860	3.7	0.50	3.3	0.50	6.6	2.0	0.015 J	0.10
<i>Anthropogenic Compounds (<math>\mu\text{g/L}</math>)</i>								
Ethylbenzene, SW8260B	ND	1.0	ND	1.0	ND	1.0	0.27 B	1.0
4-Methyl-2-pentatone, SW8260B	ND	5.0	ND	5.0	ND	5.0	31	5.0
Toluene, SW8260B	ND	1.0	ND	1.0	ND	1.0	5.6	1.0
m- & p-Xylenes, SW8260B	ND	2.0	ND	2.0	ND	2.0	0.42 B	2.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[**RL**, reporting limit; **mg/L**, milligrams per liter; **J**, the associated method blank contained the target analyte at a reportable limit; **Q**, Reporting limit is elevated due to high analyte levels; **B**, estimated concentration—detected below the reporting limit; **G**, The reporting limit is elevated due to matrix interference; **ND**, not detected]

Sample ID:	MWQ10		MWQ14		MWQ15		MWQ16	
Sample date & time:	6/20/2007	1410	6/22/2007	0900	6/21/2007	1105	6/20/2007	1350
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Major Ions (mg/L)</i>								
Calcium, SW6010B	61 J	0.2	80 J	0.2	130 J	0.2	310 J	0.2
Magnesium, SW6010B	33	0.2	72	0.2	95	0.2	270	0.2
Potassium, SW6010B	5.1	3	12	3	9.7	3	16	3
Sodium, SW6010B	18	5	650	5	1,400	5	2,100	5
Alkalinity, MCAWW310.1	210 J	5.0	130 J	5.0	150 J	5.0	48 J	5.0
Chloride, MCAWW300.0A	23	3.0	640 Q	60	1,400 Q	150	3,500 Q	300
Sulfate, MCAWW300.0A	52 Q	10	960 Q	100	1,900 Q	250	2,000 Q	500
<i>Other Major Elements (mg/L)</i>								
Boron, SW6010B	0.098 B	0.1	1.8	0.1	1.6	0.1	1.6	0.1
Bromide, MCAWW300.0A	0.17 B	0.20	4.8 G	0.40	8.4 G	1.0	8.0 G	1.0
Fluoride, MCAWW300.0A	0.73	0.50	2.5 G	1.0	1.7 B,G	2.5	ND G	2.5
Lithium, SW6010B	0.042	0.01	0.23	0.01	0.40	0.01	0.42	0.01
Silica, SW6010B	37	1.1	12	1.1	15	1.1	7.5	1.1
Strontium, SW6010B	2.4	0.01	3.7	0.01	4.9	0.01	15	0.01
<i>General Chemistry (mg/L)</i>								
Dissolved Solids, MCAWW160.1	440	10	2,400	10	2,500	10	8,400 Q	100
Ammonia as N, MCAWW350.1	0.033 B	0.10	0.040 B	0.10	0.044 B	0.10	0.048 B	0.10
Nitrate & Nitrite, MCAWW353.2	9.4 Q	0.50	2.8	0.10	6.7	0.10	0.87	0.10
Organic Carbon, SW9060	0.20 B	1.0	0.37 B	1.0	6.4	1.0	0.66 B	1.0
Phosphorous, MCAWW365.3	0.0087 B	0.050	0.89	0.050	0.0096 B	0.050	ND	0.050
Sulfide, SW9030B/903	1.3 B	4.0	1.3 B	4.0	1.0 B	4.0	0.96 B	4.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[**RL**, reporting limit; **µg/L**, micrograms per liter; **ND**, not detected; **B**, estimated concentration—detected below the reporting limit; **J**, the associated method blank contained the target analyte at a reportable limit]

Sample ID: Sample date & time:	MWQ10 6/20/2007 1410		MWQ14 6/22/2007 0900		MWQ15 6/21/2007 1105		MWQ16 6/20/2007 1350	
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Trace Elements and Compounds (µg/L)</i>								
Aluminum, SW6010B	ND	100	ND	100	ND	100	ND	100
Antimony, SW6020	ND	2.0	0.11 B	2.0	0.28 B	2.0	0.36 B	2.0
Arsenic, SW6020	4.4 B	5.0	4.4 B	5.0	12	5.0	5.0	5.0
Barium, SW6020	120	1.0	11	1.0	11	1.0	16	1.0
Cadmium, SW6020	ND	1.0	0.10 B	1.0	0.078 B	1.0	0.098 B	1.0
Chromium, SW6020	0.96 B	2.0	1.7 B	2.0	2.3	2.0	3.7	2.0
Cobalt, SW6020	0.43 B	1.0	6.8	1.0	6.5	1.0	61	1.0
Copper, SW6020	1.7 B	2.0	4.0	2.0	8.1	2.0	9.1	2.0
Iron, SW6020	24 B,J	100	43 B,J	100	45 B,J	100	79 B,J	100
Lead, SW6020	0.55 B	1.0	ND	1.0	ND	1.0	0.21 B	1.0
Manganese, SW6020	ND	1.0	0.57 B	1.0	4.3	1.0	1.7	1.0
Molybdenum, SW6020	4.7	2.0	28	2.0	14	2.0	11	2.0
Nickel, SW6020	9.7	2.0	7.7	2.0	13	2.0	48	2.0
Selenium, SW6020	3.2 B	5.0	27	5.0	160	5.0	39	5.0
Uranium, SW6020	11	1.0	23	1.0	33	1.0	4.2	1.0
Vanadium, SW6020	36	5.0	5.2	5.0	9.5	5.0	6.7	5.0
Zinc, SW6020	15	10	8.3 B	10	6.3 B	10	7.1 B	10
Perchlorate, SW6860	0.40	0.10	4.8	1.0	23	5.0	2.8	1.0
<i>Anthropogenic Compounds (µg/L)</i>								
Benzene, SW8260B	ND	1.0	0.20 B	1.0	0.23 B	1.0	0.33 B	1.0
Bromodichloromethane, SW8260B	ND	1.0	ND	1.0	ND	1.0	0.20 B	1.0
Toluene, SW8260B	ND	1.0	0.55 B	1.0	0.79 B	1.0	0.64 B	1.0
Chloroform, SW8260B	ND	1.0	ND	1.0	ND	1.0	0.43 B	1.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.

[**RL**, reporting limit; **mg/L**, milligrams per liter; **J**, the associated method blank contained the target analyte at a reportable limit; **B**, estimated concentration—detected below the reporting limit; **Q**, Reporting limit is elevated due to high analyte levels; **G**, The reporting limit is elevated due to matrix interference; **ND**, not detected]

Sample ID: Sample date & time:	MWQ18		MWQ20		MWQ21		MWQ22	
	6/20/2007	1305	6/20/2007	1105	6/19/2007	1040	6/19/2007	1215
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Major Ions (mg/L)</i>								
Calcium, SW6010B	42 J	0.2	560 J	0.2	170 J	0.2	35 J	0.2
Magnesium, SW6010B	19	0.2	330	0.2	77	0.2	15	0.2
Potassium, SW6010B	2.7 B	3	15	3	11	3	3.1	3
Sodium, SW6010B	65	5	3,100	5	200	5	320	5
Alkalinity, MCAWW310.1	160 J	5.0	51 J	5.0	230 J	5.0	170 J	5.0
Chloride, MCAWW300.0A	39	3.0	5,900 Q	600	150 Q	15	290 Q	30
Sulfate, MCAWW300.0A	110 Q	25	1,800 Q	250	690 Q	100	260 Q	50
<i>Other Major Elements (mg/L)</i>								
Boron, SW6010B	0.18	0.1	1.20	0.1	0.37	0.1	0.86	0.1
Bromide, MCAWW300.0A	0.22	0.20	10 G	2.0	1.1	0.20	0.80	0.20
Fluoride, MCAWW300.0A	1.4	0.50	ND G	5.0	2.7	0.50	0.56	0.50
Lithium, SW6010B	0.069	0.01	0.67	0.01	0.17	0.01	0.087	0.01
Silica, SW6010B	47	1.1	9.6	1.1	49	1.1	11	1.1
Strontium, SW6010B	0.92	0.01	28	0.1	3.3	0.01	0.89	0.01
<i>General Chemistry (mg/L)</i>								
Dissolved Solids, MCAWW160.1	470	10	12,000 Q	100	1,600	10	1,000	10
Ammonia as N, MCAWW350.1	0.071 B	0.10	0.39	0.10	0.060 B	0.10	0.070 B	0.10
Nitrate & Nitrite, MCAWW353.2	0.54	0.10	ND	0.10	1.4	0.10	0.39	0.10
Organic Carbon, SW9060	ND	1.0	0.19 B	1.0	1.2	1.0	11	1.0
Phosphorous, MCAWW365.3	0.0078 B	0.050	ND	0.050	0.0059 B	0.050	ND	0.050
Sulfide, SW9030B/903	1.3 B	4.0	1.7 B	4.0	1.3 B	4.0	1.1 B	4.0

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—continued.  
 [RL, reporting limit;  $\mu\text{g/L}$ , micrograms per liter; **B**, estimated concentration—detected below the reporting limit; **ND**, not detected; **J**, the associated method blank contained the target analyte at a reportable limit]

Sample ID: Sample date & time:	MWQ18		MWQ20		MWQ21		MWQ22	
	6/20/2007	1305	6/20/2007	1105	6/19/2007	1040	6/19/2007	1215
Analytes and Methods	Result	RL	Result	RL	Result	RL	Result	RL
<i>Trace Elements and Compounds (<math>\mu\text{g/L}</math>)</i>								
Antimony, SW6020	0.071 B	2.0	0.50 B	2.0	0.099 B	2.0	0.23 B	2.0
Arsenic, SW6020	6.9	5.0	2.0 B	5.0	5.8	5.0	2.0 B	5.0
Barium, SW6020	31	1.0	29	1.0	37	1.0	34	1.0
Cadmium, SW6020	ND	1.0	0.091 B	1.0	ND	1.0	ND	1.0
Chromium, SW6020	1.7 B	2.0	2.9	2.0	1.1 B	2.0	0.94 B	2.0
Cobalt, SW6020	1.6	1.0	12	1.0	2.7	1.0	3.3	1.0
Copper, SW6020	0.90 B	2.0	3.9	2.0	2.7	2.0	1.4 B	2.0
Iron, SW6010B	36 B,J	100	56 B,J	100	ND	100	150 J	100
Lead, SW6020	0.21 B	1.0	0.20 B	1.0	ND	1.0	0.21 B	1.0
Manganese, SW6020	0.37 B	1.0	900	1.0	0.73 B	1.0	410	1.0
Molybdenum, SW6020	5.0	2.0	16	2.0	8.8	2.0	9.0	2.0
Nickel, SW6020	6.9	2.0	84	2.0	9.3	2.0	2.8	2.0
Selenium, SW6020	4.0 B	5.0	13	5.0	11	5.0	7.0	5.0
Thallium, SW6020	ND	1.0	0.037 B	1.0	ND	1.0	0.026 B	1.0
Uranium, SW6020	4.0	1.0	1.2	1.0	120	1.0	25	1.0
Vanadium, SW6020	62	5.0	0.87 B	5.0	47	5.0	15	5.0
Zinc, SW6020	8.0 B	10	18	10	7.8 B	10	6.4 B	10
Perchlorate, SW6860	5.4	1.0	ND	0.10	7.0	2.0	1.5	0.50
<i>Anthropogenic Compounds (<math>\mu\text{g/L}</math>)</i>								
4-Methyl-2-pentatone, SW8260B	6.9	5.0	ND	5.0	ND	5.0	ND	5.0
Toluene, SW8260B	2.4	1.0	0.60 B	1.0	ND	1.0	0.33 B	1.0
Benzene, SW8260B	ND	1.0	0.47 B	1.0	ND	1.0	ND	1.0
Chloroform, SW8260B	ND	1.0	0.16 B	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane, SW8260B	ND	1.0	0.13 B	1.0	ND	1.0	ND	1.0
Caprolactam, SW8270C	ND	20	5.9 B	20	ND	20	ND	20

**Table 2.** Summary of analyte concentrations in ground water collected June 18–22, 2007, from monitoring wells at Melrose Air Force Range, New Mexico—concluded.

[**RL**, reporting limit; **mg/L**, milligrams per liter; **J**, the associated method blank contained the target analyte at a reportable limit; **Q**, Reporting limit is elevated due to high analyte levels; **B**, estimated concentration—detected below the reporting limit; **ND**, not detected]

Sample date & time:	Sample ID:		MWL6		
	6/19/2007	1450	Sample date & time:	6/19/2007	1450
Analytes and Methods	Result	RL	Analytes and Method	Result	RL
<i>Major Ions (mg/L)</i>			<i>Trace Elements and Compounds (µg/L)</i>		
Calcium, SW6010B	70 J	0.2	Arsenic, SW6020	5.8	5.0
Magnesium, SW6010B	34	0.2	Barium, SW6020	21	1.0
Potassium, SW6010B	4.5	3	Chromium, SW6020	0.70 B	2.0
Sodium, SW6010B	71	5	Cobalt, SW6020	1.9	1.0
Alkalinity, MCAWW310.1	120 J	5.0	Copper, SW6020	0.87 B	2.0
Chloride, MCAWW300.0A	110 Q	15	Iron, SW6010B	200 J	100
Sulfate, MCAWW300.0A	210 Q	25	Manganese, SW6020	86	1.0
<i>Other Major Elements (mg/L)</i>			Molybdenum, SW6020	2.2	2.0
Boron, SW6010B	0.19	0.1	Nickel, SW6020	4.6	2.0
Bromide, MCAWW300.0A	0.60	0.20	Selenium, SW6020	7.3	5.0
Fluoride, MCAWW300.0A	1.1	0.50	Uranium, SW6020	3.3	1.0
Lithium, SW6010B	0.089	0.01	Vanadium, SW6020	46	5.0
Silica, SW6010B	48	1.1	Zinc, SW6020	11	10
Strontium, SW6010B	1.70	0.01	Perchlorate, SW6860	11	2.0
<i>General Chemistry (mg/L)</i>			<i>Anthropogenic Compounds (µg/L)</i>		
Dissolved Solids, MCAWW160.1	690	10	Toluene, SW8260B	0.25 B	1.0
Ammonia as N, MCAWW350.1	0.084 B	0.10			
Nitrate & Nitrite, MCAWW353.2	0.63	0.10			
Organic Carbon, SW9060	0.31 B	1.0			
Phosphorous, MCAWW365.3	ND	0.050			
Sulfide, SW9030B/903	2.2 B	4.0			

**Table 3-1. Media Sampled at Melrose Air Force Range (1995–2004)**

	SWMU 114	SWMU 115	SWMU 117	AOC 1	AOC 2	AOC 3	AOC 4
1995 Phase I RFI (soil) <sup>1</sup>	X	X	X	X	X	X	X
1995 Phase I RFI (groundwater) <sup>1</sup>	X	X	–	X	X	–	X
2000 Supplemental Field Program (groundwater) <sup>2</sup>	X	–	–	X	X	–	–
2002 Supplemental Field Program (soil) <sup>2</sup>	X	X	X	X	X	X	X
2004 LTM Program (groundwater) <sup>3</sup>	X	–	–	–	X	–	–

<sup>1</sup> Ebasco (1996).

<sup>2</sup> Foster Wheeler Environmental (2003).

<sup>3</sup> USAF (2004, 2005).

– not sampled

## HAZMAT RELEASE NOTIFICATION PROCEDURES

### TASK/ACTION

1. When CEV is notified of a release of oil or other HAZMAT, verify that the HAZMAT responders have been notified. CEV is the OPR for HAZMAT response on CAFB.
2. Report to the Emergency Operation Center (EOC) if required.
  - 2a. Bring copy of all CEV HAZMAT release checklist to EOC
3. Provide advice to the Incident Commander or Base Civil Engineer as required.
  - 3a. Assist with preparation of an Incident Action Plan if required.
  - 3b. Assist with instructions for disposal of hazardous waste if required. Note the CEV staff maintains guidance for disposal for HAZMATs in their work center.
  - 3c. Provide the IC/BCE information regarding environmentally sensitive areas on Cannon AFB and MAFR, examples: surface waters, groundwater wells, sensitive flora/fauna, vegetation, and wildlife .
4. Determine the hazardous substance and quantity released.
  - 4a. Find out what environmental impact the release has had or will have e.g. did it or could it reach water or soil.
  - 4b. Determine the reporting requirements from references maintained in the CEV work center. Note: CEV maintains copies of regulations with reporting requirements, guidance regarding reportable quantities, location of known HAZMATs used on the facility and aircraft, Material Safety Data Sheets, and telephone numbers and websites for making reports.
  - 4c. Notify the Incident Commander or Base Civil Engineer re the reporting requirement
  - 4d. Make the applicable reports to local, state, federal, and USAF agencies in the required time period by telephone or via electronic reporting systems.
  - 4e. Follow-up Verbal reports with written reports if required by the agency to which the report was made.
5. Maintain a log of all CEV actions taken.
  - 5a. Maintain a copy of all notifications made.
6. Note that CEV personnel have not been tasked to be either initial or follow-on responders to a HAZMAT release site and do not have the PPE required to enter a HAZMAT site until it has been declared safe to do so by the IC.
7. After a HAZMAT release site has been declared safe for entry, CEV may need to enter the site to determine if any environment media has been impacted. This may require the taking of soil and water samples and photographs.
8. CEV will normally be tasked regarding remediation of the site. This may require that a contractor be obtained to further investigate the site, remove contaminated media, and restore the site.

**CES ENVIRONMENTAL FLIGHT  
HAZARDOUS WASTE DISPOSAL PROCEDURES**

**TASK/ACTION**

When hazardous waste has been generated as the result of a Major Accident, Natural Disaster, or Attack on the facility, CEV will:

1. Determine characteristics of the Hazardous Waste (HW).
2. Advise emergency responders and/or personnel tasked to gather the HW regarding the proper container to use for storage and/or shipping.
3. Provide the appropriate containers if the user of the hazardous substance does not have them. The CEV Central Accumulation Point contractor may be tasked to deliver and pickup these containers.
4. Assist the HW turn-in organization with the preparation of turn-in documents.
5. Prepare a profile (description) for the HW. This may require the taking of samples for analysis by a contract laboratory.
6. Request the pickup and disposal of the HW at a permitted site.
  - 6a. Coordinate the preparation of the HW manifest.
  - 6b. Sign the manifest as the facility generator.
  - 6c. Ensure compliance with all applicable disposal regulations
7. Advise the IC regarding collection of waste from decontamination procedures.
8. Advise the IC and/or BCE regarding Cannon's capability to store and/or dispose of solid and hazardous waste.

**CES ENVIRONMENTAL FLIGHT  
HAZMAT RELEASE SITE INVESTIGATION AND REMEDIATION  
PROCEDURES**

**TASK/ACTION**

When the environmental media in an area has been contaminated as the result of a Major Accident, Natural Disaster, or Attack on the facility, CEV will:

1. Report the incident to the appropriate environmental authorities. CEV maintains reporting guidance in their work center.

1a. The USAF and/or state environmental agency may require that the site be investigated and characterized to determine the existing and/or potential environmental impact of the hazardous substance release.

1b. The USAF and/or state environmental agency may require that the site be restored to a condition that poses no threat to the environment

2. If site restoration is within the capability of Cannon resources, CEV will advise regarding what needs to be done for the restoration.

2a. CEV will determine the characteristics of any contaminated waste to be removed and disposed of off the facility.

2b. CEV will provide the appropriate containers if the organization responsible for the release does not have them. The CEV Central Accumulation Point contractor may be tasked to deliver and pickup these containers.

3. If site restoration is not within the capability of Cannon resources, CEV will with the required approvals (project and funding) request and be the Contracting Officer Representative for restoration of the site by an environmental contractor.

3a. CEV will prepare the Statement of Work

3b. CEV will obtain all necessary permits.

3c. CEV will ensure that disposal manifests are properly prepared and signed.

3d. CEV will ensure compliance with all applicable disposal regulations

4. CEV will ensure coordination and reporting of all restoration actions are accomplished.



Checklist: 01-A-01

**TOWER OPERATIONS  
CHECKLISTS**

**Purpose:** The enclosed checklists will be used to assist in identifying the actions required by the RCO to conduct daily Tower Operations.

**Scope:** These checklists apply to all operational activities in the Melrose Range tower.

**References:** Procedures identified in this document are based on requirements contained in AFI 13-212, Primary Training Range Directives, and Ahntech Corporate Policy and Guidance.

**OPR:** Gary Warren

**Review Date:** 13 December 2007

Anthony Mahan  
Melrose Range Site Manager

# INTRODUCTION:

1. The OPR is responsible for the contents of all checklists.
2. These checklists are to be reviewed semi-annually for accuracy and content.
3. Whenever one of the referenced regulations or documents is updated or changed, the changes will be reviewed by the OPR to identify any necessary updates to these checklists as a result.

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## Speed Dial Listing

Speed Dial Number	Name	Programmed Number	Commercial Number
1	SOF	784-7854 (784-2220)	(505)-784-7854
2	Weather (Forecaster)	784-2748	(505)-784-2748
3	Time Hack	94-762-1401	(202)-653-1800
4	Wing Command Post	784-2253	(505)-784-2253
5	Wing Scheduling	784-7635	(505)-784-7635
6	Cannon Tower	784-2997	(505)-784-2997
7	Cannon RAPCON	784-2465	(505)-784-2465
8	EOD	784-2909	(505)-784-2909
9	Cannon Base Ops	784-2801	(505)-784-2801
10	Ahntech Maintenance Control	784-6659	(505)-784-6659
11	Albuquerque Center (Position)	93-245-1821	(505)-856-1821
12	Albuquerque Center (Supervisor)	93-245-1573	(505)-856-4573
13	Range Fire Dept.	784-6648 (4-6888)	(505)-784-6648
14	Cannon Alarm Room	784-2578	(505)-784-2578
15	Weather (Observer)	784-2749	(505)-784-2305
16	QAE (Tom)	784-6373	(505)-784-6373
17	FAC (Johnny)	784-2878	(505)-784-2878
18	Roosevelt County Electric COOP	99-356-4491	(505)-356-4491
19	Roosevelt County Telephone COOP	99-359-1273	(505)-356-1273
20	Clovis ASOS	99-389-1056	(505)-389-1056
21	25 <sup>th</sup> WXAE	94-228-6674	(520)-228-6674
22	Albuquerque Center, Position	93-245-1821	(505)-856-1821
23	Tony Mahan (Work)	784-6661	(505)-784-6661
24	Tony Mahan (Home)	99-693-4928	(505)-693-4928
25	Tony Mahan (Cell)	99-799-6354	(505)-799-6354
26	Tony Moretta	99-763-1799	(505)-763-1799
27	Range Fire Dept. Back-up	784-6499	(505)-784-6499
28	Cannon Alarm Room Back-up	784-7284	(505)-784-7284
29	Johnny Rogers (Home)	99-763-6605	(505)-763-6605
30	Johnny Rogers (Cell)	99-760-7309	(505)-760-7309
31	Tom Prescott (Home)	99-985-8053	(505)-985-8053

32	Tom Prescott (Cell)	99-760-7149	(505)-760-7149
33	Tony Moretta (Cell)	99-309-6191	(505)-309-6191
34	GECCO Site	784-6659	(505)-784-6659
35	Gerry Foisie (Work)	784-6135	(505)-784-6135
36	Gerry Foisie (Home)	99-763-3882	(505)-763-3882
37	Gerry Foisie (Cell)	99-760-7249	(505)-760-7249
38	Gary Warren (Cell)	99-760-8650	(505)-760-8650
39	Wing Safety Office	784-4467	(505)-784-4467
40	Julie Ivy (Cell)	99-799-9653	(505)-799-9653

## RANGE OPEN CHECKLIST, TOWER

Action	Tower Speed Dial	DSN	Local Number
The following items will be inspected and prepared for use prior to the start of flying.			
Clear the strafe area of projectiles, fused brass, and other hard objects			
Inspect strafe pits for proper target alignment and berm condition.			
Inspect the conventional target for fire alignment, bulls eye target condition, and excessive contamination.			
Inspect the skip target for proper boundary marker alignment and proper silhouette configuration.			
Obtain the range airspace from CP	04	681-2253	784-2253
Review the days flying schedule			
Complete the tower opening checklist			

**Further Guidance** may be located in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Attachment 7.

## TOWER OPENING CHECKLIST

Action	Tower Speed Dial	DSN	Local Number
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**Turn on equipment:**

- VHF Radio (122.7, Primary; 121.5 Standby)
- URC-200
- OK-423/G
- Turn on cell phone.

**Adjust intensity on Wind Indicator:**

**Get time hack and adjust clocks as needed:**

03

94-762-  
1401

N/A

**The Digital Recorder shall remain on at all times.**

- Monitor the display window to insure all indicators are yellow (standby).
- Perform a test count on one frequency at a time and insure the indicator turns dark green (recording).
- Recording Channel Listing:
  - Channel 1...Primary 376.15
  - Channel 2...Back-up 376.15
  - Channel 3...ICOM (VHF Radio)
  - Channel 4...Primary 243.0
  - Channel 5...URC-200
  - Channel 6...Back-up 243.0
  - Channel 7...FM Net
  - Channel 8...784-6646
  - Channel 9...Hot Line

**Verify operation of hotline with RAPCON/Command Post/Tower:**

**Contact Cannon Tower and obtain radio checks on:**

- 376.15 Primary
- 376.15 Backup
- 243.0 Primary

06

681-2997

784-2997

<ul style="list-style-type: none"> <li>• 243.0 Backup</li> <li>• URC-200</li> <li>• VHF 122.7</li> <li>• VHF 121.5</li> </ul>			
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<b>Contact Cannon Weather for the current fire danger.</b>	15	681-2749	784-2305
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<b>Contact Range Fire Department on Radio:</b> <ul style="list-style-type: none"> <li>• Verify FM radio operation</li> <li>• Confirm Personnel and Equipment status, and mark on the Form 1.</li> <li>• Advise the Fire Department of the range fire condition.</li> </ul>			
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<b>Monitor Cannon ATIS (269.9)</b> <ul style="list-style-type: none"> <li>• Document Altimeter/weather information</li> <li>• Contact SOF or Command Post and advise of weather observations if questionable</li> </ul>	SOF 01	681-2220	784-2220
	C.P. 04	681-2253	784-2253

<b>30 Minutes prior to first scheduled aircraft time, Announce on FM radio net “Range is going HOT, Aircraft due on range in three zero minutes”</b>			
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<b>Transmit on UHF, 376.15, the name of the RCO on duty, date, time, and weather conditions.</b>			
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<b>Scan target complex area with field glasses and ensure no vehicles or personnel are in the target area</b>			
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<b>Ensure target complex gate below the tower is closed</b>			
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**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addenda A, and Contract number F44650-00-C0004, Chapter 2, Appendix 1 to Chapter 2, and the Melrose Bomb and Gunnery Range Annex.

# **TOWER CRASH/ACCIDENT RESPONSE CHECKLIST**

In the case of an Aircraft crash on the range or in the immediate locale, the on-duty RCO will immediately report to the tower (if not already in-place) and conduct the following activities:

<b>Action</b>	<b>Tower Speed Dial</b>	<b>DSN</b>	<b>Local Number</b>
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<b>Immediately cease all air-to-ground operations.</b>			
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<b>Announce the Emergency on the local Telephone Intercom and the FM radio net.</b>			
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<b>Notify the range Fire Department.</b>	<b>13</b>	<b>681-6648</b>	<b>784-6648</b>
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<b>Notify Command Post and provide as much of the following information as known:</b>	<b>04</b>	<b>681-2253</b>	<b>784-2253</b>
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Aircraft Call Sign			
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Aircraft Type			
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Aircraft Organization			
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Time of Accident			
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Geographic Location			
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All other appropriate details			
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Alternate notification:      Radio 381.3			
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<b>Cannon Tower:</b> Radio 348.4	<b>06</b>	<b>681-2997</b>	<b>784-2997</b>
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<b>Cannon Ground Control:</b> Radio 275.8			
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<b>Notify Ahntech Job Control to cease all non-essential range activities and initiate the Ahntech Crash/Accident Response checklist.</b>	<b>10</b>	<b>681-6659</b>	<b>784-6659</b>
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<b>The RCO will attempt to survey the crash site from the tower using binoculars. If another aircraft is on the range, attempt to use the pilot to obtain visual information.</b>			
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<b>Watch for parachutes. If chutes detected, advise the Range Fire Dept. of there location.</b>	<b>13</b>	<b>681-6648</b>	<b>784-6648</b>
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<b>The RCO shall dispatch the on-duty Heavy Equipment Operator to respond with the road grader for fire suppression and crash recovery activity as required.</b>			
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**NOTE: The range senior supervisor shall advise the Range Manager, ROO & QAE of the situation.**

The RCO will remain in the tower throughout the rescue and recovery efforts or until relieved. The on-duty RCO will facilitate the following activities:

- Assume responsibility as interim on-scene commander until the crash response team can respond
- Monitor Communications
- Coordinate with 27<sup>th</sup> Command Post
- Maintain a Communications Log
- Assist in communications and rescue operations as required

Once rescue activities are concluded, all JAWSS videotapes, radio communications recordings, and any other pertinent records should be secured to assist in accident investigation efforts as required.

**General guidance** may be found in AFI 13-212, Vol. I, Par 4.3.14.4.

**Specific activities and tasks identified in this checklist are based upon Local Ahntech Policy and are not necessarily addressed in the contract or local AFI 13-212V1, ACCSUP1, CAFB Addendum A.**

## TOWER EVACUATION CHECKLIST

Action	Tower Speed Dial	DSN	Local Number
<p><b>The tower shall be vacated in the following conditions:</b></p> <ul style="list-style-type: none"> <li>• Surface winds reach steady 50 knots or at a point that the RCO deems unsafe.</li> <li>• Tower cab temperature reaches 90 degrees.</li> <li>• For safety, (tornados, earthquakes, etc).</li> </ul>			
<p><b>If safety permits, the RCO will complete the Tower Closing Checklist prior to evacuating the tower.</b></p>			
<p><b>Notify Cannon Command Post and the SOF that the range is closed.</b></p>	04 01	681-2253 681-2220	784-2253 784-2220
<p><b>Advise Ahntech Maintenance Control</b></p>	10	681-6660	784-6660
<p><b>The RCO will relocate to the main building and monitor primary UHF frequency and notify aircraft of the range status if they call.</b></p>			

**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Para. 5.7.10.

# **FIRE RESPONSE CHECKLIST**

**Note: All range fires shall be extinguished without delay.**

<b>Action</b>	<b>Tower Speed Dial</b>	<b>DSN</b>	<b>Local Number</b>
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<b>All fires shall be immediately reported to:</b> <ul style="list-style-type: none"> <li>• <b>Range Fire Station</b> (Call on FM Net, Phone, or intercom)</li> </ul>	<b>13</b>	<b>681-6648</b>	<b>784-6648</b>
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<b>Suspend flight operations on the Range for all fires to allow the Fire Department to respond, or as other situations warrant. <u>(DO NOT DEACTIVATE THE AIRSPACE)</u></b>			
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<b>The RCO <u>may</u> allow aircraft to remain on the range above 3000 feet AGL for training. (Do not allow aircraft operations to interfere with RCO duties during fire fighting operations).</b>			
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<b>Advise Ahntech Job Control of the fire</b>	<b>10</b>	<b>681-6660</b>	<b>784-6660</b>
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<b>Dispatch personnel to escort fire department to all off-Hazard area fires.</b>			
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<b>At the RCO's discretion, dispatch the road Grader/s to all fires.</b>			
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<b>Remain in the tower and coordinate fire response activities as required.</b>			
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**NOTE: The range senior supervisor shall advise the Range Manager, ROO & QAE of the situation.**

**For Ahntech personal, further guidance is in the Ahntech OI 03-C-06, Melrose Range Emergency Action Plan.**

**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addendum A, Paras. 1.8, Change 1 dated 6 Oct 2006, and Contract number F44650-00-C0004, Melrose B&G Annex, and Para. 5.1.7.1

# **AIRCRAFT RADIO FAILURE CHECKLIST**

**Note:** Unless otherwise informed, all situations involving an aircraft with radio failure will be treated as an aircraft emergency accompanied by radio failure.

<b>Action</b>	<b>Tower Speed Dial</b>	<b>DSN</b>	<b>Local Number</b>
<b>When a pilot recognizes radio failure:</b> <ul style="list-style-type: none"> <li>• <b>Ordnance will not be dropped</b></li> <li>• <b>Aircrew will attempt radio contact on VHF 122.7 or 243.0.</b></li> <li>• <b>If radio contact cannot be established, pilot will maintain pattern spacing and fly by the tower rocking wings.</b></li> <li>• <b>If still no contact the pilot will then orbit 1000 ft above the highest briefed pattern or depart the Range depending on the urgency of the situation</b></li> </ul>			
<b>Upon indication of aircraft radio failure, RCO will attempt contact with aircraft on UHF Guard (243.0)</b>			
<b>Notify Flight Lead of situation (the flight lead should designate an aircraft to accompany the distressed aircraft.</b>			
<b>Contact Cannon Tower and advise of situation</b>	<b>06</b>	<b>681-2997</b>	<b>784-2997</b>
<b>Maintain surveillance of distressed aircraft</b>			
<b>Restrict range traffic as necessary</b>			
<b>Continue to provide information as necessary to Flight lead and Cannon Tower</b>	<b>06</b>	<b>681-2997</b>	<b>784-2997</b>

**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Para. 5.7.1 and 5.7.3.

## **AIRCRAFT EMERGENCY CHECKLIST**

<b>Action</b>	<b>Tower Speed Dial</b>	<b>DSN</b>	<b>Local Number</b>
<b>When an aircraft emergency situation arises, the Pilot will advise the Flight Lead and RCO of the nature of the emergency and intentions.</b>			
<b>If immediate landing is required, the aircraft will depart to the East and contact Cannon RAPCON on 358.3 or Cannon Tower on 348.4</b>			
<b>Contact Cannon Tower and advise them of the nature of the emergency and intentions of the aircraft, if known.</b>	06	681-2997	784-2997

**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Paras. 5.7.2.

# INADVERTENT OR OFF-RANGE RELEASE CHECKLIST

<b>Action</b>	<b>Tower Speed Dial</b>	<b>DSN</b>	<b>Local Number</b>
<b>Aircrew advises RCO of Inadvertent or Off-Range release</b>			
<b>Obtain the following information from the aircrew and forward to the Command Post, ROO and QAE:</b> <ul style="list-style-type: none"> <li>• Time and Description of incident</li> <li>• Type of released object</li> <li>• Location of impact point if known</li> <li>• Call sign and type of aircraft</li> <li>• Squadron</li> <li>• Crew number</li> <li>• Aircraft tail number</li> <li>• Bombing event</li> </ul>	<b>04</b>	<b>681-2253</b>	<b>784-2253</b>
<b>If aircrew reports the presence of fire as a result of impact, contact Range Fire Department and initiate Fire Response Checklist</b>	<b>13</b>	<b>681-6648</b>	<b>784-6648</b>
<b>Instruct Aircrew to note switch positions, safe up, and Return to Base.</b>			
<b>In case of any Ordnance release off-range, notify:</b> <ul style="list-style-type: none"> <li>• <b>Range Manager</b> <ul style="list-style-type: none"> <li>• Home Phone</li> <li>• Cell Phone</li> </ul> </li> <li>• Command Post</li> <li>• ROO</li> <li>• QAE</li> </ul>	<b>10</b>	<b>681-6660</b>	<b>784-6660</b>
	<b>24</b>	<b>N/A</b>	<b>793-4928</b>
	<b>25</b>	<b>N/A</b>	<b>799-6354</b>
	<b>04</b>	<b>681-2253</b>	<b>784-2253</b>
	<b>17</b>	<b>681-2878</b>	<b>784-2878</b>
	<b>16</b>	<b>681-6373</b>	<b>784-6373</b>

**Further guidance** may be found in AFI 13-212V1, ACCSUP1 CAFB Addenda A, Para. 5.7.7 and Contract number F44650-00-C0004, Section C-5, B&G Specific Tasks, Para 5.1.8.

# EMERGENCY EXTERNAL STORES JETTISON CHECKLIST

**Note:** In the interest of Aircraft or Aircrew Safety, the Pilot may jettison External Stores when/where needed.

## Day/VMC Procedures:

Action	Tower Speed Dial	DSN	Local Number
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Daytime/VMC jettison passes will be controlled by the RCO where time and safety allow			
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RCO will instruct the Aircrew to fly magnetic heading 171 degrees, at a safe escape altitude – (1000’ AGL Minimum)			
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Clear aircrew for release of external stores aiming toward any heavyweight target. (Upon verification of heading and altitude)			
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## Night /IMC Procedures:

Radar assistance for controlled, IFR, external stores jettison or bail out is available from Cannon RAPCON on 358.3.

Action	Tower Speed Dial	DSN	Local Number
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The aircraft will contact CAFB RAPCON on frequency 358.3.			
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The RAPCON shall coordinate with the RCO for the use of R-5104/5105 airspace.	07	681-2465	784-2465
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<b>The RCO shall clear any known traffic out of R5104/5105 and release the required airspace to CAFB RAPCON.</b>	<b>07</b>	<b>681-2465</b>	<b>784-2465</b>
<b>Pilots will fly outbound on the CVS 290°R to intercept the 25 DME arc, arc south and initiate external stores jettison when passing the CVS 249°R heading 168°.</b>			
<b>JAWSS equipment will be switched to target T-92 (N 34° 16.077 by W 103° 47.992) camera database to record all objects dropped and explosions.</b>			
<b>The RCO will count all objects released, if able</b>			
<b>Close the range if any unexploded munitions are suspected until EOD can safe the area. (DO NOT DEACTIVATE THE AIRSPACE)</b>			
<b>Advise EOD of the events</b>	<b>08</b>	<b>681-2909</b>	<b>784-2909/7505</b>

**Further guidance** may be found in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Para. 5.7.9.

# LIVE ORDNANCE JETTISON CHECKLIST

**NOTE:** Live ordnance will only be jettisoned during an actual emergency that represents a hazard to aircraft and crew. The live ordnance jettison area is T-92. All jettison passes will be controlled by the RCO when the range is open, except during Night/IMC conditions when CAFB RAPCON may control the jettison pass.

## Day/VMC Procedures:

Action	Tower Speed Dial	DSN	Local Number
The jettison pass must be controlled by an RCO when the range is open.			
JAWSS equipment will be switched to the T-92 camera database to record all objects dropped and explosions.			
Direct the aircrew to fly down the nuclear run-in line on a heading of 170 degrees at a safe escape altitude.			
The jettison target is T-92 (N 34° 16.077 by W 103° 47.992)			
Clear aircrew to release live ordnance upon verification of proper heading and altitude			
Count all objects released if able			
Close the range if any unexploded munitions are suspected until EOD can safe the area. <b>(DO NOT DEACTIVATE THE AIRSPACE)</b>			
Advise EOD of the events	08	681-2909	784- 2909/7505

## Night.IMC Procedures:

Action	Tower Speed Dial	DSN	Local Number
The aircraft will contact CAFB RAPCON on frequency 358.3.			
The RAPCON shall coordinate with the RCO for the use of R-5104/5105 airspace.	07	681-2465	784-2465
The RCO shall clear any known traffic out of R 5104/5105 and release the required airspace to CAFB RAPCON.			
Pilots will fly outbound on the CVS 290°R to intercept the 25 DME arc, arc south and initiate external stores jettison when passing the CVS 249°R heading 168°.			
JAWSS equipment will be switched to the T-92 (N 34° 16.077 by W 103° 47.992) camera database to record all objects dropped and explosions.			
The RCO will count all objects released, if able			
Close the range if any unexploded munitions are suspected. ( <u>DO NOT DEACTIVATE THE AIRSPACE</u> )			
Advise EOD of events	08	681-2909	784-2909/7505

Further guidance may be found in AFI 13-212V1, ACCSUP1 CAFB Addenda A, Para. 5.7.9.

## RANGE LASER OPERATIONS

Action	Tower Speed Dial	DSN	Local Number
<b>Ensure that all laser targets are cleared of specular reflective objects to a radius of 60 meters (188 feet).</b>			
<b>Ensure that ground based Lasers Lase only from the West mesa, the range tower, or other 27OSS/OSR approved locations.</b>			
<b>Ensure that range personnel inspect the specific ground hazard zone for planned Laser operations.</b>			
<b>Warn all personnel on the range of imminent Laser operations on the range via FM radio and telephone.</b>			
<b>Call Ahntech ECR site and inform them of Laser operations and record initials of individual contacted.</b>	10	681-6660	784-6660
<b>Call fire department and inform them of Laser operations and record initials of individual contacted.</b>	13	681-6648	784-6648
<b>Advise the "Scan Eagle" personnel via radio, if on range.</b>			
<b>Direct the JAWSS Technician to Close the East electric gate</b>			

<b>Ensure that all personnel in the vicinity of a laser range remain outside of the Laser Target Area (LTA) and Laser Hazard Zone (LHZ) during laser operations or wear laser eye protection. All personnel without proper eye protection will remain in range buildings until Laser operations have ended.</b>			
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<b>Make the following FM radio transmission when the first Lasing Aircraft checks on range:</b>			
<ul style="list-style-type: none"> <li>• “Laser operations in effect. All personnel will go inside or use laser eye protection”</li> </ul>			

<b>Make the following FM radio transmission once Lasing operations have terminated:</b>			
<ul style="list-style-type: none"> <li>• “Laser operations are terminated at this time”.</li> </ul>			

<b>Notify Ahntech job control that Lasing operations have terminated record the initials of the individual contacted.</b>	<b>10</b>	<b>681-6660</b>	<b>784-6660</b>
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<b>Notify Range Fire Department that Lasing operations have terminated and record the initials of the individual contacted.</b>	<b>13</b>	<b>681-6648</b>	<b>784-6648</b>
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<b>Annotate Laser Start and Stop times in the “Laser” block on the RCO log.</b>			
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**Further guidance** may be located in AFI 13-212V1, ACCSUP 1, CAFB Addenda A, Para 3.1.7 and 27<sup>th</sup> OSR letter, dated 28 March, 2001, subject “Guidance for Laser Operations at Melrose Range” and signed by Mr. Thomas R. Prescott.

## CANNON RADAR OUT CHECKLIST

Action	Tower Speed Dial	DSN	Local Number
<b>R-5104 A/B shall become inactive at and above 9,000' MSL when all the following conditions have occurred;</b> <b>1. Cannon RAPCON's Radar is inoperative</b> <b>2. Non-Radar procedures are in use</b> <b>3. The active runway is 04</b>			
<b>The RAPCON watch supervisor shall notify the RCO when the above conditions occur.</b>			
<b>The RCO will restrict all operations to 8,000' MSL and below.</b>			
<b>The RAPCON watch supervisor will notify the RCO once ABQ center takes control of the airspace or Cannon radar is returned to service.</b>			
<b>The RCO will obtain the status of the range air space from the RAPCON watch supervisor or ABQ center controller.</b>	RAPCON- 07 ABQ- 11	681-2465 245-1821	784-2465 93-245-1821

**Further guidance** may be located in CAFBI 11-250, para. 1.3.7.

## TOWER CLOSING CHECKLIST

Action	Tower Speed Dial	DSN	Local Number
<b>Inform Command Post of reason for tower closure and return airspace:</b>	04	681-2253	784-2253
<b>Document airspace transfer and closure time on the OSR Form 1:</b>			
<b>Announce on the FM radio net that the "Range is Closed".</b>			
<b>Notify Ahntech Job Control of range closure:</b>	10	681-6660	784-6660
<b>Notify Range fire department of range closure:</b>	13	681-6648	784-6648
<b>Perform Tower cleanup</b>			

## RANGE CLOSING CHECKLIST, TOWER

Action	Tower Speed Dial	DSN	Local Number
The following items will be completed prior to the end of the day.			
Retrieve next day's flying schedule			
Complete the tower closing checklist			
Total OSR Form 1 for processing			
Obtain next days flying schedule			
Prepare next days OSR Form 1			

**Further Guidance** may be located in AFI 13-212V1, ACCSUP1, CAFB Addenda A, Attachment 7.

Request to re-issue a

Certificate of Title

Certificate of Lien

Call to verify information before filing.  
207-624-9000 ext. 52138



VEHICLE SERVICES - TITLE SECTION  
BUREAU OF MOTOR VEHICLES  
29 STATE HOUSE STATION  
AUGUSTA ME 04333-0029

Fee: \$23.00

Please type or print clearly in  
dark ink.

RUSH REQUEST Additional \$10.00 Fee

In accordance with Chapter 7, Title 29A M.R.S.A., Section 661, I hereby apply for a replacement Certificate of Title or Certificate of Lien. I (we) state under penalties of false statement, that the original title was: (if destroyed or illegible, remnants of title must accompany this form.)

LOST

STOLEN

DESTROYED

ILLEGIBLE

OWNER INFORMATION	1 NAME(S): LAST, FIRST, MIDDLE INITIAL A.			2 DATE OF BIRTH A.		3. TELEPHONE # A.		
	B.			B.		D.		
	4 OWNER'S CURRENT MAILING ADDRESS--NO & STREET							
	CITY		STATE		ZIP CODE			
VEHICLE INFORMATION	5 YEAR	6 MAKE	7 MODEL	8 VEHICLE IDENTIFICATION NUMBER			9. BODY TYPE	10 NEW <input type="checkbox"/> USED <input type="checkbox"/> REBUILT <input type="checkbox"/>
	11. PURCHASE DATE		12. CURRENT ODOMETER READING <input type="checkbox"/> MI. <input type="checkbox"/> KM DO NOT ESTIMATE--NO TENTHS		MILEAGE STATED AS: <input type="checkbox"/> ACTUAL MILEAGE <input type="checkbox"/> IN EXCESS OF MECHANICAL LIMITS <input type="checkbox"/> NOT ACTUAL--ODOMETER DISCREPANCY		IF NOT ACTUAL: <input type="checkbox"/> ODOMETER CHANGED <input type="checkbox"/> ODOMETER BROKEN MUST FILE MVT-32	
LIEN INFORMATION <small>A LIEN RELEASE FORM (MVT-12) MUST BE FILED IF MOTOR VEHICLE RECORDS SHOW A LIEN WHICH HAS SINCE BEEN RELEASED</small>	13 FIRST LIEN HOLDER'S NAME IF VEHICLE FINANCED, IF NO LIEN, STATE "NONE"					14. DATE OF LIEN M/D/Y		
	15 ADDRESS--NO. & STREET			CITY		STATE		ZIP CODE
	16 SECOND LIEN HOLDER'S NAME					17. DATE OF LIEN M/D/Y		
	18. ADDRESS--NO & STREET			CITY		STATE		ZIP CODE
SIGNATURES <small>PLEASE SEE INSTRUCTIONS</small>	19 I(WE) CERTIFY THE ACCURACY OF ALL THE INFORMATION ABOVE A. _____ B. _____ Date _____ SIGNATURES OF OWNERS AS NAMED IN BLOCK 1. ALL OWNERS MUST SIGN IF MULTIPLE OWNERSHIP							
	20. LIEN HOLDER'S SIGNATURE -- IF APPLICABLE NAME		POSITION			DATE		
<b>Authorization for Mailing</b>								
I (we) hereby certify that I (we) intend to transfer my (our) interest in the above vehicle to a Maine licensed dealer. I (we) authorize the Bureau of Motor Vehicles to forward the Certificate issued as a result of this application to the dealer named below. This section not for use by dealers outside of Maine or for private sales. This is not a transfer of ownership (use form MVT-16 to transfer).								
21. DEALER'S NAME			22. ADDRESS			23. PLATE NUMBER D <input type="checkbox"/> 1/C <input type="checkbox"/> N/C <input type="checkbox"/>		
NAME	POSITION	SIGNATURE	DATE					

Failure to provide all signatures, information or documents necessary may result in a delay in processing your application. Making a false statement on this form is a criminal offense. Never sign a blank form.

D  L  O  MV

APPLICATION RECEIVED \_\_\_\_\_  
DATE

PTN: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

## INSTRUCTIONS

1. A duplicate Certificate of Title will contain the legend, **"This is a duplicate Certificate and may be subject to the rights of a person under the original Certificate."** A duplicate Certificate of Title will be mailed to the owner or, at the owner's request, to a Maine licensed dealer. If a Certificate of Title or Certificate of Lien has been lost, stolen, mutilated or destroyed or becomes illegible, the first lien holder shown on the certificate may apply for and obtain a duplicate upon furnishing information satisfactory to the Secretary of State. **(If a Duplicate Certificate Title is to be sent to anyone other than the owner or a Maine Dealer, the owner must submit a separate written authorization.)**
2. The Secretary of State is not required to issue an additional duplicate until 15 days after the previous duplicate was issued.
3. A person recovering an original Certificate of Title for which a duplicate has been issued must promptly surrender the original Certificate to the Title Section of the Bureau of Motor Vehicles.
4. Required Fees:

**\$23.00 – Regular duplicate Certificate of Title**  
**\$33.00 – Rush duplicate Certificate of Title, (\$23.00 title fee plus the**  
**(\$10.00 rush fee.)**

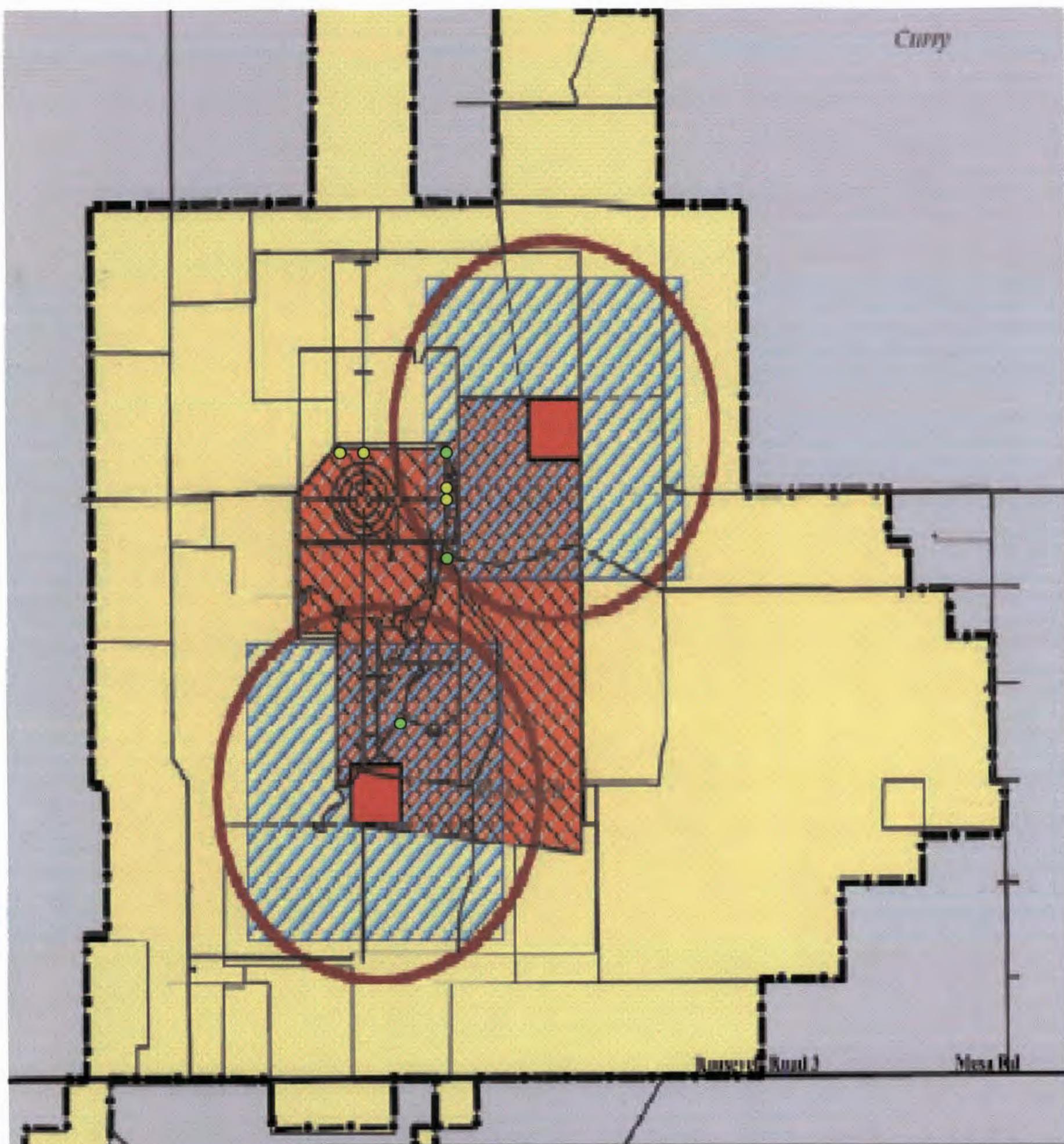
**CHECKS SHOULD BE MADE PAYABLE TO "SECRETARY OF STATE."**  
**Please do not send cash**

5. If the original Certificate is mutilated or illegible, the Certificate or its remnants must accompany this application.
6. Failure to provide all signatures, information and/or necessary documents may result in suspension of your application and/or registration.
7. If BMV records show a lien against the vehicle, which has since been released, the lien holder must release his security interest on form MVT-12.

**NOTE:** A lien holder cannot create a lien with this form.

## MAINE 15 YEAR TITLE SCHEDULE

As of January 1, 2001 vehicles that are 1985 model year and older are title exempt.  
As of January 1, 2002 vehicles that are 1986 model year and older are title exempt.  
As of January 1, 2003 vehicles that are 1987 model year and older are title exempt.  
As of January 1, 2004 vehicles that are 1988 model year and older are title exempt.  
As of January 1, 2005 vehicles that are 1989 model year and older are title exempt.  
As of January 1, 2006 vehicles that are 1990 model year and older are title exempt.  
As of January 1, 2007 vehicles that are 1991 model year and older are title exempt.  
As of January 1, 2008 vehicles that are 1992 model year and older are title exempt.  
As of January 1, 2009 vehicles that are 1993 model year and older are title exempt.  
As of January 1, 2010 vehicles that are 1994 model year and older are title exempt.



Area of Concern ●  
 Solid Waste Management Unit ●

LEGEND		Live Fire Range Options	
Mesa Range	Target Box	0	1 2 3
County	Safety Weapons Footprint (Inclusive Ubb)	0	1 2 3 4
Leased Land	Exclusive-Use Area	Miles Kilometers 	
	11,000' AGL 24 deg of bank 228 lbs TAS 10,338' turn radius		