

DEPARTMENT OF THE AIR FORCE HEADQUARTERS 377TH AIR BASE WING (AFMC)

> CERTIFIED MAIL P 383 051 610 RETURN RECEIPT REQUESTED

MEMORANDUM FOR MR. BENITO GARCIA, CHIEF HAZARDOUS & RADIOACTIVE MATERIALS BUREAU NEW MEXICO ENVIRONMENT DEPARTMENT PO BOX 26110 SANTA FE NM 87502

29 October 1998

FROM: 377 ABW/EMR 2050 Wyoming Blvd SE, Ste 124 Kirtland AFB NM 87117-5270

SUBJECT: Quarterly Report

1. We are submitting the quarterly RCRA Corrective Action report for the period July 1, 1998 through September 30, 1998, as required by the conditions set forth in our RCRA Part B Permit, Module IV, Section E.

2. Please contact me at (505) 846-0053 if you have any questions.

CHRISTOPHER B. DEWITT, R.P.G. Chief, Restoration Branch Environmental Management Division

Attachment: Quarterly Report

cc: See Distribution List



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Quarterly Report

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Kirtland AFB, New Mexico July 1, 1998 through September 30, 1998

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I. INTRODUCTION

A. Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended by RCRA Statute (42 U.S.C. 6701, <u>et seq</u>.), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), a permit has been issued to Kirtland AFB to operate a hazardous waste disposal facility (ID No. NMD9570024423, October 10, 1990).

B. This Quarterly Report is consistent with the terms and conditions of the permit found under HSWA Module IV, Section E.

II. DESCRIPTION OF WORK COMPLETED

A. The following is a list of solid waste management units (SWMUs) and areas of concern (AOCs) investigated under the Installation Restoration Program (IRP) and the Environmental Compliance Program (ECP). Also listed are the site descriptions, relative risk, and status as of this quarter.

SWMU	CAU	KAFB		DESCRIPTION	REL.		
No.	No.	No.	RPM	······	RISK	PHASE	ICM
6.4			10	Landfill No. 4	Link	C 140	
6.0	1		12	Landfill No. 1	пign U:-ь	CMS	N
6-2	2		12	Landfill No. 2	High	CMS	P/C
6-3	3		12		Low	CMS	N
6-4	4	LF-08	MH	Landfill 4,5, & 6	High	CMS	N
	5	LF-268	MH	Active Landfill			
6-7	6	LF-18	JS	Landfill A	Low	CMS	N
6-8	7	LF-15	JS	Landfill B	Low	CMS	N
6-10	8	LF-09	MH	Abandoned Landfill	Low	NFA	Ν
6-11	9	LF-44	MH	Fill Area SE of Sewage Lagoons	Low	NFA	Ν
6-14	10	ST-51	(MH	Sewage Effluent Line	NR	NFA	Ν
6-15	11	LF-45	MH	Unnamed Dump ~	Low	NFA	Ν
6-16	12	FT-13	MH	Kirtland Fire Training Area	Low	NFA	С
6-19	13	OT-29	JS	EOD Range	Medium	NFA	С
6-22	14	OT-46	MH	Lake Christian	High	CMS	Ν
6-24	15	WP-16	MH	Manzano Sewage Treatment Facility	Low	NFA	С
6-29	16	LF-20	MH	Manzano Landfill	Low	CMS	Ν
6-30	17	RW-06	MH	Radioactive Burial 11	Medium	CMS	С
6-31	18	OT-28	JS	McCormick Ranch Range	Low	CMS	Ν
6-32	19	FT-14	JS	Manzano Fire Training Area	Low	CMS	С
6-A1	20	RW-21	JS	Radioactive Burial 7	NR	NFA	С
6-A2	21	RW-04	JS	Radioactive Holding Tank 4	NR	NFA	С
	22	RW-05	JS	Radioactive Holding Tank 5	NR	NFA	С
	23	RW-17	JS	Radioactive Holding Tank 6	NR	NFA	С
	24	RW-19	JS	Radioactive Holding Tank 8	NR	NFA	C
	25	RW-23	JS	Radioactive Holding Tank 9	NR	NFA	С
8-5	26	ST-201	HD	Oil/Water Separator, Bldg 255	Low	NFA	Ň
8-6	27	WP-47	MH	Silver Recovery Unit	NR	NFA	Ċ
8-13	28	ST-71	MH	Bldg 1001/1002 Oil/Water Separator	NE	CMS	Ň
8-26	29	ST-242	HD	2 Oil/Water Separators Bldg 1063	Low	NFA	N
		ST-243			2011		
8-28	30	ST-250	HD	Oil/Water Separator, Bldg 20338	Low	NFA	Ν
. 8-29	31	ST-251	HD	Oil/Water Separator, Bldg 20344	Low	NFA	Ν

SUMMARY OF KIRTLAND AFB IRP & ECP SWMU SITES

SWMU No.	CAU No.	KAFB <u>No.</u>	RPM	DESCRIPTION	REL. RISK	PHASE	ICM
8-31	32	ST-252 ST-253	HD	2 Oil /Water Separators, Bldg 20348	Low	NFA	N
8-35	33	ST-214	HD	Waste Oil Storage Tank, Bldg 471	Hiah	CMS	Р
8-41	34	ST-274	HD	Waste Battery Storage Area, Bldg 20423	Low	NFA	Ċ
8-47	35	ST-261	HD	Oil/Water Separator, Bldg 20423	Low	NFA	Ň
8-49	36	SS-61	MH	Fuel Shop Wst Batt Strg Area, Bldg 20677	Low	NFA	N
8-53	37	ST-335	HD	Pnt Shop Fir Drn to Rock Bed. Bldg 20681	Low	NFA	N
8-55	38	ST-262	HD	Oil/Water Separator, CE Bldg 20698	Low	NFA	N
8-58	39	ST-321	HD	Battery Storage Area, Bldg 57007	Low	NFA	N
9-4	40	ST-276	HD	Waste Accumulation Area, Bldg 617	Medium	REI	N
9-14	41	ST-270	HD	Buried Caustic Drain Line, Bldg 617	Low	CMS	N
9-15	42	ST-271	HD	Neutralization Pit, Bldg 617	Medium	CMS	N
9-16	43	ST-272	HD	Evaporation/Infiltration Pond. Bldg 617	Medium	CMS	N
9-20	44	SS-62	HD	Bidg 909 Waste Accumulation Area	Low	CMS	N
10-1				Sanitary Sewer Systems	2011	ente	
10-1A	45	ST-278	HD	Sanitary Sewer System A	Low	NFA	N
10-1B	46	ST-279	HD	Sanitary Sewer System B	Low	NEA	N
10-1C	47	ST-280	HD	Sanitary Sewer System C	Low	NEA	N
10-1D	48	ST-281	HD	Sanitary Sewer System D	Low		N
10-1F	49	ST-282	HD	Sanitary Sewer System F	Low		N
10-1G	50	ST-284	HD	Sanitary Sewer System G	Low		N
10-1H	51	ST-327	HD	Manzano Sanitary Sewer System	Low		N
10-2	01	01 027	110	Storm Sewer Systems	LOW	INFA	IN
10-24	52	ST-325	нр	Corrosion Control Shop Bldg 482 Strm Drai			N
10-2R	53	ST-220	HD	Paint Shon, Bldg 1001, Storm Drain			IN N
10-20	00	01-220	ne	Plating & Anodizing Bldg 1001, Storm Drain	LOW	INFA	IN
10-20	54	ST-320	нр	Propulsion Branch Elr Dros. Bldg 336	Low		N
0-2D	55	SC 63		Int Engine Test Cell	Low		IN N
0-2E	56	ST-325		H.3/H.53 Phase Dock Ridg 1000 Elr Dros	Low		
0.20	57	ST-323		C 120 Matao Shap, Bida 1000, Strm Source	Low		
0-203	59	ST-331		Most Storm Source System	Low		
0-21 10 21	50	ST-200		Foot Storm Sower System	Low		
0-21	59	ST-200		East Storm Sewer System	Low	NFA	C
0-3	60	51-249	Hυ	Olan Storage Tank, Bidg 20205	Low	NFA	N
0-7	64	OT 205		Oil/Water Separators, Sed Traps, Area Drain:	S		
0-7A	01	ST-205 ST-204	HU	Sediment Trap, Bldg 333	Low	NFA	N
0-7B	62	ST-206 ST-207 ST-208	HD	3 Oil/Water Separators, Bldg 336	Low	NFA	Ν
40.70	60	ST-209		Catch Basin, Bidg 336	•		
0-70	03	OT 010	ΠU	Onvvaler Separator, Blog 381 Area Drain, Blog 391	LOW	NFA	N
	64	ST-213		Area Drain, Bidg 38 I			
	04	SI-217	HD	Oil/Water Separator, Bldg 481	Low	NFA	N
	65	ST-218	HD	Oil/Water Separator, Bidg 482	Low	NFA	N
10-7F	00	ST-222 ST-223 ST-224 ST-225	HD	Sewage Ejector Unit, Bldg 1031 Area Drain, Bldg 1031 Holding Tapk, Bldg 1031	Low	NFA	N
10-7G	67	ST-225 ST-226	HD	Oil/Water Separator, Bldg 1037 Holding Tank, Bldg 1037	Low	NFA	Ν
10-7H	68	ST-228	нп	Area Drain Rida 1040	Low	NEA	М
10-71	69	ST-220	п	Sewage Fiector Unit Ridg 1043			IN N
10-7.1	70	ST-229	но	OilMater Separator Bldg 1045	Low		IN N
	10	ST-230 ST-231 ST-232 ST-233		Holding Tank, Bldg 1046 Sewage Ejector Unit, Bldg 1046 Area Drain, Bldg 1046	LOW	NFA	
10-7K	71	ST-234 ST-235 ST-236	HD	3 Oil/Water Separators, Bldg 1051	Low	NFA	Ν

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SWMU No.	CAU No.	KAFB No.	RPM	DESCRIPTION	REL. RISK	PHASE	ICI
		ST 007		Aroo Droin Plda 1051			
10 71	70	51-23/ ST 229	תנו	Area Drain, blog 1051 2 OilMator Separators, Bldg 1056	Low		N
10-7L	12	ST-230	ΠU	2 Olivivaler Separators, blog 1050	LUW	INFA	IN
10 744	70	ST-239	מנו	Holding Topk, Ridg 1059	Low		N
10-7 IVI 10 7N	73	ST-240	סח	OilMater Separator, Bida 1061	Low		IN N
10-7N	74	ST-241	טר <i>ו</i> מנו	Oll/Water Separator, Bidg 1061	Low		IN N
10-70	15	S1-244	ΠU	University Dide 1064	LOW	NFA	N
40.70	70	S1-245	110	CillMater Consister Dide 4070	1		
10-7P	76	S1-246	HD	Olivvater Separator, Bidg 1070	Low	NFA	N
10-7Q	77	S1-254	HD	Oil/Water Separator, Blog 20365	Low	NFA	N
10-7R	78	S1-255	HD	3 Oil/Water Separators, Bidg 20375	LOW	NFA	N
		S1-256					
40.70	70	ST-257			1		
10-75	79	S1-259		Oil/Water Separator, Bidg 20422	Low	NFA	N
10-71	80	S1-263	HD	Oil/Water Separator, Bidg 23226	Low	NFA	N
10-70	81	ST-264	HD	Oil/Water Separator, Bldg 30142	Low	NFA	N
10-7V	82	ST-267	HD	Oil/Water Separator, Bldg 57007	Low	NFA	N
10-21				Septic Systems			
10-21A	83	ST-287	HD	Bldg 525 Septic System	Low	NFA	N
10-21B	84		HD	Chemical Laser Facility	Low	NFA	N
		ST-288		Bidg 614 Septic System			
		ST-289		Bldgs 617/620 Septic System			
		ST-290		Bldg 619 Septic System			
		ST-291		Bldg 617 Septic System			
		ST-292		Bldg 622 Septic System			
ST-273		ST-273		Bldg 618 Septic System			
10-21C	85		HD	Former FAA Facility	Medium	NFA	C
		ST-294		Bldg 633 Septic System			
		ST-295		Bldg 638 Septic System			
10-21D	86		HÐ	Range and Ammunition Storage Facility	Low	NFA	N
		ST-296		Bldg 702 Septic System			
		ST-297		Bldg 707 Septic System			
		ST-298		Bldgs 730/734 Septic System			
		ST-299		Bldg 751 Septic System			
10-21E	87	ST-300	HD	Bldg 20199 Septic System	Low	NFA	N
10-21F	88	ST-301	HD	Bldg 20560 Septic System	Low	NFA	N
10-21G	89	ST-302	HD	Bldg 20599 Septic System	Low	NFA	N
10-21H	90	ST-303	HÐ	Bldg 20749 Septic System	Low	NFA	N
10-211	91	ST-304	HD	Bldg 20797 Septic System	Low	NFA	N
10-21J	92	ST-305	HD	Bldg 28054 Septic System	Low	NFA	N
		ST-306		Bldg 28054 Septic System			
10-21K	93	ST-307	HD	Bldg 30101 Septic System	Low	NFA	N
		ST-315		Bldg 30102 Septic System			
10-21L	94	ST-308	HD	Bldg 37511 Septic System	Low	NFA	N
10-21M	95	ST-309	HD	Bldg 37504 Septic System	Low	NFA	N
10-21N	96	ST-310	HD	Bldgs 37507/37508/37513 Septic System	Low	NFA	N
		ST-322		Bldgs 37507/37508/37513 Septic System			
10-210	97	ST-311	HD	Plant 1 and Bldg 37501 Septic System	Medium	NFA	C
10-21P	98	ST-312	HD	Plant 2 and Bldg 37503 Septic System	Low	NFA	N
10-21Q	99	ST-313	HD	Bldgs 37529/37530 Septic System	Low	NFA	N
10-21R	100	ST-293	HD	Bldg 37570 Septic System	Low	NFA	N
10-21S	101	ST-314	HD	Bldgs 48056/48059 Septic System	Low	NFA	Ň
10-21T	102		HD	Civil Engineering Research Facility	Low	NFA	N
		ST-316		Bldas 57003/57012 Septic System			
		ST-317		Bldg 57011 Septic System			
ST-340		ST-340		Bldgs 57001 and 57002 Septic System			
10-2111	103	ST-318	ΗD	Blda 37200 Septic System	Low	NFA	N
10-21	104	ST-319	HD	Bldg 37541 Septic System	Low	NFA	N
10-21W	105	ST-320	HD	Bldg 20149 Septic System	Low	NFA	N
10-21X	106	ST-323	нп	Bldg 29042 Septic System	Low	NFA	N N
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SWMU No.	CAU No.	KAFB No.	<u>RPM</u>	DESCRIPTION	REL. RISK	PHASE	ICM
10-21Y	107	ST-324	HD	Bldg 29051 Septic System	Low	NFA	N
10-21Z	108	ST-330	HD	Bldg 1032 Septic System	Low	NFA	Ν
10-21AA	109		HD	Starfire Optical Range	Low	NFA	N
		ST-333		Bldg 66001 Septic System			
		ST-342		Bldg 66029 Septic System			
		ST-343		Bldgs 66000/66008 Septic System			
		ST-344		Bldg 66042 Septic System			
		ST-345		Bldg 66006 Septic System			
10-21AB	110	ST-346	HD	Trestle Site Septic Tank	Low	RFI	Ν
LF-56	111	LF-56	JS	Landfill D	NE	NFA	Ν
WP-58	112	WP-58	MH	Bldg 20451, East Laundry	High	CMS	С
ST-59	113	ST-59	JS	ART Drum	NE	NFA	С
ST-60	114	ST-60	JS	ART Pit	NE	NFA	C
S1-64	115	ST-64	MH	COE Vehicle Maintenance Yard	Medium	CMS	C
SS-65	116	SS-65	JS	Horizontal Dipole Drum Rack	NE	NFA	С
ST-66	117	S1-66	JS	Trestle Facility OWS and Pit	Low	NFA	•
RW-68	118	RW-68	12	Radium Dump/Siag Piles & Crtrng Area	Low	CMS	C
33-09 ST 70	119	55-69 ST 70		Drum Storage Area	LOW	RFI CMS	
51-70	120	51-70		NAFB OII/Water Separators	High	CMS	U
	121			Bidg 353/334 OWS & Sediment Trap Bidg 377 OWS Tank Drving Back			
	122			Bidg 381 OWS			
	124			Bidg 471 OWS			
	125			Bidg 481/482 OWS			
	126			Bldg 2637 OWS			
	127			Bldg 20205 OWS			
	128			Bldg 20375 OWS			
OT 70	129	OT 70		Bidg 20422 OWS		0110	
SI-72	130	51-12 67 72		Bidg 30146, MWSA Security Garage OWS		CMS	N
OT 74	131	OT 74	16	Distol Pango Siton			N N
SS-82	132	SS-82	иD	ALECS Eacility		REI	N
ST-326	134	ST-326	HD	Waste Oil Storage Tank, Bidg 20375	Low	NFA	N
ST-328	135	ST-328	HD	Blast Overpressure Sites Cesspools	Low	RE	N
WP-339	136	WP-339	HD	Contractor Yard West of Bldg 20423	Medium	CMS	P
ST-341	137	ST-341	HD	Evap Pond & Condensate Tank, Bldg 1033	High	CMS	U.
Potential S	SWMUs			-			
N/A	138	DP-67	JS	Three Mine Shafts	NE	NFA	Ν
N/A	139	SS-76	JS	Fuel Tank Burn Area	Medium	SAR	Р
N/A	140	SS-77	HD	Abandoned Railroad Spur	NE	RFI	N
N/A	141	SS-78	HD	Water Tower Soils	NE	SAR	N
N/A	142	SS-79	HD	Bldg 381 Spill Site	NE	RFI	U
N/A	143	ST-80	HD	Bidg 30124, Manzano Auto Hobby Shop	NE	REI	N
N/A	144	55-81	12	Bidg 907 Detention Pond and Yard	Medium	SAR	N
IN/A	145	55-82	HD	ALEUS Facility	NE	REI	N
N/A	140	00-00 D\A/ 04	ID IC	Skeel Range Arroyo ang Langilli Road Manzano Rurial Sitos			۲ P
N/A	147	0T_94	10	manzano Duna Siles Former Smell Arme Denges	Low	SAR	۳ N
NI/A	140 140	\//D_97	<u>лэ</u>	GRABS Site Waste Dile	Medium	SAR	
N/A	149	707-07	שה חע	Tractla Sita Dienceal Area		SAK	U NI
N/A	150	55-80	JS	Transportation Yard		SAR	IN N
N/A	152	SD-90	мн	JATO Rocket Motor Disposal Site	NE	SAR	N
N/A	153	OT-91	18	South Covote Firing Site	NE	SAR	N
N/A	154	DP-99	JS	Bldg 29015 Disposal Pit	NF	SAR	N
	104	21-00	00			JAN	14

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SWMU	CAU	KAFB		DESCRIPTION	REL.		
No.	No.	No.	RPM		RISK	PHASE	ICM

Sites Not Regulated Under the RCRA Part B Permit

N/A	155	WP-26	MH	Sewage Lagoons & Golf Course Pond	High	CMS	Р
N/A	156	OT-10	JS	Radiation Training Sites 5-8	High	SI	Р
N/A	157	RW-75	MH	South Tijeras Rad Trench	NR	SI	N
N/A	158	RW-85	MH	Manzano Maintenance Bldg	NE	SI	Ν

ICMs include cleanups that were completed as part of a study phase and are current as of FY98. N: No, U: Underway, P: Planned

Bold Type: IRP Sites and AOCs Normal Type: ECP Sites and AOCs

Phase is actual or anticipated for 1998 - 1999

RPM is Restoration Project Manager, HD: Harry Davidson, MH: Mark Holmes, JS: Jerry Sillerud

III. SUMMARY OF ACTIVITIES AND FINDINGS

- A. SWMU Assessments and New AOCs:
 - 1: SWMU Assessments:
 - AOC RW-85, Manzano Maintenance Bldg (RW-85): We completed SWMU assessment field activities.
 - AOC OT-86, Former Small Arms Ranges (OT-86): We completed SWMU assessment field activities.
 - AOC DP-88, Trestle Disposal Area (DP-88): We completed and submitted the SWMU assessment report recommending additional investigations for this AOC.
 - AOC SD-90, JATO Rocket Motor Disposal Site (SD-90): We completed and submitted the SWMU assessment report recommending no further action for this AOC.
 - AOC OT-91, South Coyote Firing Site (OT-91): Limited characterization activities were completed earlier by Sandia National Laboratories prior to the site being identified as a Kirtland AFB IRP site.
 - 2. New AOCs:
 - AOC DP-99, Building 29015 Disposal Pit (DP-99): We notified NMED of this new AOC on August 26, 1998. Kirtland AFB EM personnel identified this site during the August 1998 internal ECAMP inspection. A follow-up site investigation of the area and review of base maps were conducted. The site does appear as "Pit" on base maps from the 1970s and 1980s. It is located just north of SOR/Mortar Range Road near the intersection with ITRI Blvd in the south-central portion of the base and consists of a pit, approximately six feet in diameter and three to four feet deep. The nearest IRP site is RW-68. It appears the site may have been used for waste disposal. It is not known when

the pit was in use or what wastes may have been disposed of. Some minor soil staining is visible. It is possible the pit may have served as a drain basin for portable showers used during local exercises.

- B. RCRA Facility Investigation (RFI):
 - 1. Sampling and Analysis Plans (SAPs): No activity.
 - 2. Field Work:
 - NRC Site OT-10, Radiation Training Sites 5 thru 8 (OT-10): We completed site characterization field activities including final analysis of previously collected radionuclear background samples, demarcation of the radionuclear burial area on site 5, full operation of the on-sit chemical laboratory with sit samples, off-site analysis of selected samples for verification, and final assessment of the possible geophysical anomaly on site 8.
 - SWMU 9-4, Waste Accumulation Area, Bldg 617 (ST-276): We initiated and completed RFI field activities.
 - AOC SS-77, Abandoned Railroad Spur (SS-77): We initiated and completed RFI field activities.
 - AOC ST-80, Bldg 30124, Manzano Auto Hobby Shop (ST-80): We initiated and completed RFI field activities.
 - AOC SS-82, ALECS Facility (SS-82): We initiated and completed RFI field activities at this AOC.
 - AOC SS-83, Skeet Range and Landfill Road (SS-83): We initiated and completed RFI field activities at this AOC.
 - AOC ST-328, BOP Site Cesspools: We initiated and completed additional RFI site characterization.
 - SWMU WP-339, Contractor Yard West of Bldg 20423 (WP-339): We initiated RFI field activities

3. Reports:

- NRC Site OT-10, Radiation Training Sites 5 thru 8 (OT-10): We began preparing the site characterization report.
- AOC ST-328, BOP Site Cesspools: We began preparing the RFI report.

C. Risk Assessment:

1. Ecological Risk: We began preparation and completed the draft of the Sampling and Analysis Plan for additional sampling at SWMU 6-2, SWMU 6-3, and SWMU 6-10 to meet requirements to complete Screening-Level Ecological Risk assessments. These assessments, coupled with the Human Health Risk assessments will support risk-based cleanup/closure of SWMUs.

- 2. Human Health Risk: No activity.
- D. Corrective Measures Study (CMS):
 - 1. Work Plans:
 - SWMU 6-1, Landfill No. 1 (LF-01): We completed design basis for alternatives and selection criteria and began preparing the CMS work plan.
 - SWMU 6-4, Landfill No. 4,5,6, (LF-08), Kirtland Landfill (LF-268): We completed design basis for alternatives and selection criteria and began preparing the CMS work plan. We completed and submitted a separate CMS work plan for monitoring well installation.
 - SWMU 6-22, Lake Christian (OT-46): We completed design basis for alternatives and selection criteria and began preparing the CMS work plan.
 - SWMU 6-29, Manzano Landfill (LF-20): We submitted the CMS work plan for monitoring well installation.
 - SWMU 8-13, Bldgs 1001/1002, Oil/Water Separator (ST-71): We prepared and submitted a CMS work plan.
 - SWMU 9-20, Bldg 909 Inactive Waste Accumulation Area (SS-62): We prepared and submitted a CMS work plan.
 - SWMU WP-58, Bldg 20451, East Laundry (WP-58): We prepared and submitted a CMS work plan.
 - SWMU ST-70, Kirtland AFB Oil/Water Separators (ST-70): We began preparing the CMS work plan.
 - SWMU ST-72, Bldg 30146, Oil/Water Separator (ST-72)(Former ST-265): We prepared and submitted a CMS work plan.
 - 2. Study and Field Work:
 - SWMU 6-30, Radioactive Burial 11 (RW-06): We initiated and completed additional CMS field activities consisting of one deep boring at the site. A groundwater monitoring well was not completed because depth to groundwater was greater than 400 feet below ground surface. We initiated the CMS.
 - SWMU 6-32, Manzano Fire Training Area (FT-14): We initiated and completed additional CMS field activities consisting of one deep boring at the site. A groundwater monitoring well was not completed because depth to groundwater was greater than 500 feet below ground surface. We initiated the CMS.
 - SWMU 8-13, Bldgs 1001/1002, Oil/Water Separator (ST-71): We initiated and completed additional CMS site characterization and initiated the CMS.
 - SWMU WP-58, Bldg 20451, East Laundry (WP-58): We initiated the CMS.
 - SWMU ST-64, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337): We completed the CMS.

- SWMU ST-72, Bldg 30146, Oil/Water Separator (ST-72)(Former ST-265): We initiated and completed additional CMS site characterization and initiated the CMS.
- SWMU ST-341, Condensate Holding Tank and Evaporation Pond (ST-341): We continued the Bioventing Pilot Study.
- 3. Reports:
 - SWMU 6-30, Radioactive Burial 11 (RW-06): We began preparing the CMS report.
 - SWMU 6-32, Manzano Fire Training Area (FT-14): We began preparing the CMS report.
 - SWMU 9-15, Neutralization Pit, Bldg 617 (ST-271): We began preparing the CMS report.
 - SWMU 9-16, Evaporation Pond, Bldg 617 (ST-272): We began preparing the CMS report.
 - SWMU ST-64, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337): We began preparing the CMS report.
 - SWMU RW-68, Radium Dump/Slag Piles and Cratering Area (RW-68): We began preparing the CMS report.
- E. Voluntary and Interim Corrective Measures (ICMs):
 - 1. Work Plans:
 - SWMU 6-2, Landfill No. 2 (LF-02): We submitted the 30% Design Plan for Interim Corrective Measures at SWMU 6-2, Landfill 2 (LF-02)/Tijeras Arroyo. The submittal includes the preliminary erosion control measures at the Tijeras Arroyo adjacent to LF-02.
 - SWMU 8-35, Waste Oil Storage Tank, Building 471 (ST-214): We prepared and submitted the ICM/CMS work plan for the innovative technology demonstration.
 - AOC SS-76, Fuel Tank Burn Area (SS-76): We began preparing the ICM work plan and quality program plan.
 - 2. Field Work:
 - Site WP-26, Sewage Lagoons and Golf Course Main Pond (WP-26): We initiated ICM field activities for treating nitrate-contaminated groundwater at the Golf Course Main Pond. We applied for a permit for the extraction well to the New Mexico State Engineer's Office and received the permit on August 18, 1998. We completed pump testing, and results were used to determine the location of the extraction well.
 - SWMU 6-2, Landfill No. 2 (LF-02): We submitted the application for a 404 Permit to the Albuquerque District, U. S. Army Corps of Engineers for the erosion control measures at the Tijeras Arroyo adjacent to LF-02.

- SWMU 8-35, Waste Oil Storage Tank, Building 471 (ST-214): We completed field activities on an innovative technology demonstration using the Rapid Optical Screening Tool (ROST) on a horizontal drilling platform to characterize petroleum hydrocarbon under Building 471. Five horizontal borings were completed, and we installed a soil vapor extraction well in one in an area identified as contaminated.
- SWMU SS-69, Drum Storage Area (SS-69): We began preparing the waste manifest and waste transportation documents for disposal of low-level radioactive waste at the Envirocare disposal facility in Utah.
- AOC SS-76, Fuel Tank Burn Area (SS-76): We completed the bench-scale testing of soil from the site for final selection of stabilization reagents.
- AOC SS-79, Bldg 381 Spill Site (SS-79): We initiated and completed excavation and stockpiling of contaminated soil.
- AOC WP-87, GRABS Site Waste Pile (WP-87): We initiated and completed excavation and stockpiling of contaminated soil.
- SWMU ST-341, Condensate Holding Tank and Evaporation Pond (ST-341): We completed final system design for the remote monitoring and control system for bioventing and completed assembly, testing, and installation of the remote monitoring and control system hardware. Associated with these tasks was the installation of system hardware.

3. Reports:

- NRC Site OT-10, Radiation Training Sites 5 thru 8 (OT-10): We completed and submitted the ICM report for repair of the left bank of Coyote Arroyo at Training Site 6.
- SWMU WP-58, Bldg 20451, East Laundry (WP-58): We began preparing the ICM report.
- SWMU ST-64, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337): We began preparing the ICM report.
- SWMU SS-69, Drum Storage Area (SS-69): We began preparing the ICM Report.
- SWMU ST-70, Kirtland AFB Oil/Water Separators (ST-70): We began preparing the ICM Report.

F. Other Investigations and Activities:

1. Groundwater Monitoring: We installed three monitoring wells at SWMU 6-29 (LF-20) as part of the CMS. One well was installed at an upgradient location and two at downgradient locations. We installed two wells and partially installed one other well at SWMU 6-4 (LF-08 and LF-268) as part of the Groundwater Monitoring Plan. The monitoring wells at SWMU 6-4 will further characterize the hydrogeologic regime at the SWMU and determine the existence, nature, and extent of contamination associated with the SWMU pursuant to the New Mexico Solid Waste Management Regulations (NMSWMR). We initiated Round 8 of quarterly sampling (July 1, 1998 – September 30, 1998). This round of sampling consists of groundwater level measurements at SWMUs 6-1, 6-2, 6-4, 6-16, 6-22, and 6-31 and will be completed in the first week of October.

We submitted the Supplemental Background Determination Report for SWMU 6-4, Kirtland Landfill (LF-268).

2. Base-Wide Background and Hydrogeology: No activity.

3. TCE Characterization and Abatement: We continued to analyze samples from the LTGWM Program for TCE..

4. Nitrate Contamination: No activity.

5. Management Action Plan Update: No Activity.

6. No Further Action (NFA): We forwarded a partial list of SWMUs we will be proposing for NFA in FY99 to NMED.

7. Base-Wide Plan: Discussions with NMED regarding Base-Wide Plan Update in conjunction with the proposed fee schedule is on-going. NMED is currently issuing RCRA Corrective Action guidance SOPs, based somewhat on KAFB's Base-Wide Plans and Document Style Guide, as well as consensus discussions at the NMED/DoD/NASA Partnering Agreement meetings. As a result, development of an updated version of the Base-Wide Plan is on hold.

8. HSWA Survey: We continued conducting an inventory and survey of all active oil/water separators and septic tanks to determine if any are currently receiving or anticipated to receive hazardous waste. In addition, historical RFI data is being summarized for each site and compared against current EPA risk-based soil screening levels. Progress to date suggests that many of these sites will be proposed for no further action (NFA).

9. Post Closure Care:

• Site WP-26, Sewage Lagoons and Golf Course Main Pond (WP-26): We continued field activities. We completed drilling and sampling in the South Lagoon and initiated drilling and sampling in the North Lagoon.

G. Program and Budget: We developed the FY99 ERA and ECP programs and budgets. There are 24 projects in the ERA budget for \$10,240,000. There are four projects in the ECP budget for \$3,450,000. The program was submitted to and validated by HQ AFMC.

H. Restoration Advisory Board (RAB): The July 23, 1998 RAB meeting was held at the Airport Wyndham Hotel. Tetra Tech NUS gave a presentation of the bioventing pilot study at SWMU ST-341, and Foster Wheeler Environmental gave a presentation of the interim corrective measure at NRC Site OT-10. Three new members indicated they would sign the RAB charter at

the next meeting. We decided that no more meetings will be cancelled, even if stakeholders do not submit agenda items.

IV. SUMMARY OF PROBLEMS

- A. SWMU Assessments and New AOCs: No problems encountered.
- B. RCRA Facility Investigation:
 - SWMU WP-339, Contractor Yard West of Bldg 20423 (WP-339): There has been a delay in the progress of the RFI due to problems installing a groundwater monitoring well.

Work to be completed during the subject project included installation of two groundwater monitoring wells, one in the perched aquifer and one in the regional aquifer. Due to adverse drilling conditions, installation of the regional well was not completed. The perched well was completed.

Installation of the regional monitor well was initiated first to determine the existence/exact location of the perched zone. Installation began on July 21. The perched aquifer was located and drilling continued to complete the well in the regional aquifer. On July 31, the protective casing was driven to a point of refusal (boulder assumed) at 429 fbgs that required 6 hours of hammering to advance the casing to 431 fbgs. The boring was continued to another point of refusal at 483 fbgs (assumed boulder again). Hammering continued for 8 hours without any further casing advancement. Because the proposed TD was 564 fbgs, the boring was continued as an "open hole" completion to the proposed depth; the casing TD remained at 483 fbgs. The boring was completed on August 4. During installation of the PVC casing for the monitor well, the casing stopped at a depth of 551 fbgs that was assumed to be bridging. The PVC was removed and a tremie pipe lowered to breakthrough the bridge that turned out to be caving that the pipe was unable to penetrate. The drill string was lowered through the caved material and the density of the drilling fluid was increased slightly to remove the caved material. Upon removal of the caved material, it was discovered that the hole had now collapsed back to a depth of 535 fbgs. On August 6, the hole was mudded up to remove the collapsed material. Circulation was attempted for 8 hours without success. It was assumed that the size of the material that had collapsed was too large to circulate in conjunction with the fact that the bottom of the hole had been greatly enlarged, reducing the velocity and carrying capacity of the mud.

We decided that the best course of action was to plugback the hole and complete a perched monitor well at this location. The hole was pluggedback to 290 fbgs on August 13, and the perched monitor well installed. A 10 foot bentonite seal was placed at the base of the monitor well to ensure against potential leakage and comingling with the regional aquifer. C. Risk Assessment: During December 1997, the NMED indicated that they wold not provide guidance or comments for conducting either human health risk assessments or ecological risk assessments.

D. Corrective Measures Study (CMS):

• SWMU 6-4, Landfill No. 4,5,6, (LF-08), Kirtland Landfill (LF-268): There has been a delay in the progress of the CMS due to problems installing a regional groundwater monitoring well.

Installation of the regional well (KAFB-0312) began August 11, 1998. On August 21, grout (vol-clay) was noted within the casing that had entered the well at some point from the annular space. Installation of the well proceeded as it was essentially complete at the time of the grout movement. The well was geophysically logged and inspected by video camera in an attempt to determine the entry point and condition of the annular space. No casing defects or breaks were discovered and the sand pack appeared in-tact. The only remaining explanation was that the grout had drained past the bentonite seal into the sand filter pack and through the well screen into the well casing. It was immediately apparent that grout had set up in the sand pack as the static water level and water production rates did not recover to pre-completion values. Immediate clean-out of the well by air-lifting proceeded from August 27 to August 31. This was discontinued because the drill rig was mobilized to another site. Beginning September 9, purging and development continued in an attempt to remove grout from the sand pack. Additives were used to breakdown the grout, followed by surging and agitation. Development continued until September 29, during which time the production rates and water levels did not recover to pre-completion levels and turbidity remained high indicating that the well was not cleaning up.

Reinstallation of the well was initiated on October 22, and completion is anticipated for November 9. Because of the delay; the groundwater was not sampled at 0312 as scheduled during the September 1998 LTM event.

The ultimate cause of the grout movement past the bentonite seal has not been completely resolved. A highly transmissive (apparently confined) zone, approximately 10 feet above the top of the bentonite seal, was encountered during the drilling. It is suspected that water under pressure from the zone weakened the base of the grout, permitting the column to drop under its own weight prior to setting up, subsequently overwhelming the integrity of the bentonite seal. If this zone is encountered in the replacement well boring, the bentonite seal above the sand pack will be extended up and over the highly transmissive zone to ensure a more adequate seal. The portion of the seal at the transmissive zone may also be cut with grout to strengthen the seal at this point.

E. Voluntary and Interim Corrective Measures:

- Site WP-26, Sewage Lagoons and Golf Course Main Pond: The Groundwater Protection Bureau directed Kirtland AFB to submit a discharge plan, a requirement of a discharge permit, for the ICM at the Golf Course Main Pond (pump and apply nitrate contaminated groundwater). Kirtland AFB filed an informal appeal stating the ICM was a CERCLA RA, and, as such, was exempt from additional permit requirements. The project will likely be delayed while the issue is debated.
- SWMU 8-35, Waste Oil Storage Tank, Building 471 (ST-214): During the installation of one of the horizontal borings, a fuel line was hit, resulting in a minor (<10 gallons) release of unleaded gasoline at the surface. The incident was reported to the proper NMED officials, and sampling indicated that no environmental damage occurred.
- AOC SS-76, Fuel Tank Burn Area (SS-76): This project was delayed by approximately five to six months to prevent disturbance of adjacent Burrowing Owl nesting sites.
- F. Other Investigations and Activities:
 - 1. Groundwater Monitoring:

a.) The projected sampling life for groundwater monitoring wells KAFB-0115 and KAFB-0902 is less than one year, indicating an increase in the projected rate of decline of the water table. There are no alternative sampling locations at either site. There are other downgradient wells at SWMU 6-1 (KAFB-0115), but KAFB-0902 will have to be replaced.

- 2. Base-Wide Background and Hydrogeology: No problems encountered.
- 3. TCE Characterization and Abatement: No problems encountered.
- 4. Nitrate Contamination: No problems encountered.
- 5. Management Action Plan Update: No problems encountered.
- 6. No Further Action (NFA): No problems encountered.
- 7. Base-Wide Plan: No problems encountered.
- 8. HSWA Survey: No problems encountered.
- 9. Post Closure Care:
 - Site WP-26, Sewage Lagoons and Golf Course Main Pond (WP-26): A number of problems have delayed progress:

The subject project proposed to install one soil boring in each lagoon and install one monitor well in the perched aquifer if discovered. The project started August 17 and was to be completed by mid-September. As of September 30, the project has not been completed.

The first boring (L1) required work from 17 Aug to 11 Sep to complete. Two factors were responsible for the delays: lack of access due to Pad 5 activities and logistical and equipment problems by Beylick Drilling; the problems with Beylick were responsible for the majority of the delays. As a result, the drill crew that completed L1 was replaced for the remainder of the project.

Boring L2 was abandoned after reaching a depth of approximately 250 feet due to the discovery of oil contamination on the soil sampling equipment (after it had collected a sample) that was traced to the air compressor on the drill rig; the oil filter had not been changed at the required maintenance interval and the oil reservoir in the compressor had been overfilled. As a result, L2 had to be redrilled causing further time delays.

Boring L3, the replacement for L2, required more time for completion than scheduled due to continued logistical and equipment problems by Beylick.

Installation of the monitor well (L4) in the perched aquifer was delayed due to the rediscovery of contamination from the drill rig during sampling of the lower zone in the perched aquifer. Montgomery-Watson stopped the project and required Beylick to examine the drill equipment for the source and to sample all of the fluids from the drilling equipment for comparison to the contamination discovered to further confirm the source. Beylick agreed to sample the well for TPH contamination upon completion of the installation and replace the well if contamination was discovered.

During development of the monitor well, grout was discovered inside of the well casing indicating that the casing integrity had been compromised. The presence of the grout was supported by pH readings of 10-12. Because the cause of the grout intrusion could not be identified, over development was attempted. During this process, the casing/screen was cracked as evidenced by pieces of PVC and sand from the filter pack in the development water. As a result, the well will require replacement, that will not be possible for at least two weeks as the drill rig was relocated to another KAFB project. The delay in the monitor well completion resulted in the well not being sampled as part of the Sep 98 LTM sampling event as scheduled.

- G. Budget & Program: No problems encountered.
- H. Restoration Advisory Board (RAB): No problems encountered.

V. PROJECTED WORK FOR THE NEXT REPORTING QUARTER

A. SWMU Assessments:

• AOC RW-85, Manzano Maintenance Bldg: We will submit a SWMU assessment report recommending no further action for this AOC.

- AOC OT-86, Former Small Arms Ranges (OT-86): We will submit a SWMU assessment report recommending no further action for this AOC.
- B. RCRA Facility Investigation
 - 1. Sampling and Analysis Plans (SAPs): No activity planned.
 - 2. Field Work:
 - SWMU WP-339, Contractor Yard West of Bldg 20423 (WP-339): We will complete Phase 2 RFI field activities.
 - 3. Reports:
 - NRC Site OT-10, Radiation Training Sites 5 thru 8 (OT-10): We will complete and submit the site characterization report.
 - SWMU 9-4, Waste Accumulation Area, Bldg 617 (ST-276): We will complete and submit the Phase 2 RFI report.
 - AOC SS-77, Abandoned Railroad Spur (SS-77): We will complete and submit the RFI report.
 - AOC ST-80, Bldg 30124, Manzano Auto Hobby Shop (ST-80): We will complete and submit the RFI report.
 - AOC SS-82, ALECS Facility (SS-82): We will complete and submit the RFI report for this AOC.
 - AOC SS-83, Skeet Range and Landfill Road (SS-83): We will complete and submit the RFI report for this AOC.
 - AOC ST-328, BOP Site Cesspools: We will complete and submit the RFI Report.
 - SWMU WP-339, Contractor Yard West of Bldg 20423 (WP-339): We will complete and submit the RFI Report.

C. Risk Assessment:

1. We will complete planning efforts and field activities related to the ecological risk assessments at SWMU 6-2, SWMU 6-3, and SWMU 6-10.

2. Risk assessments/screenings will be continue at the following SWMUs:

- SWMU 6-1, Landfill No. 1 (LF-01)
- SWMU 6-4, Landfill No. 4,5,6 (LF-08)
- SWMU 6-22, Lake Christian (OT-46)
- SWMU 6-29, Manzano Landfill (LF-20)
- SWMU 6-30, Radioactive Burial 11 (RW-06)
- SWMU 8-5, OWS, Bldg 255 (ST-201)
- SWMU 8-13, Bldg 1000/1001 OWS (ST-71)(Former ST-221)
- SWMU 8-26, 2 OWSs, Bldg 1063 (ST-242 & ST-243)

- SWMU 8-28, OWS, Bldg 20338 (ST-250)
- SWMU 8-29, OWS, Bldg 20344 (ST-251)
- SWMU 8-31, 2 OWSs, Bldg 20348 (ST-252 & ST-253)
- SWMU 8-41, Waste Battery Storage Area, Bldg 20423 (ST-274)
- SWMU 8-47, OWS, Bldg 20423 (ST-261)
- SWMU 8-53, Paint Shop Floor Drain to Rock Bed, Bldg 20681 (ST-335)
- SWMU 8-55, OWS, CE Bldg 20698 (ST-262)
- SWMU 8-58, Battery Storage Area, Bldg 57007 (ST-321)
- SWMU 9-14, Buried Caustic Drain Line, Bldg 617 (ST-270)
- SWMU 10-1, Sanitary Sewer Systems (ST-278, ST-279, ST-280, ST-281, ST-282, ST-284, & ST-327)
- SWMU 10-3, Waste Oil Storage Tank, Bldg 20205 (ST-249)
- SWMU 10-7, 41 Oil Water Separators, Sediment Traps, and Area Drains (ST-204 209, ST-212, ST-213, ST-215, ST-217, ST-218, ST-222 241, ST-244-246, ST-254 257, ST-259, ST-263, ST-264, & ST-267)
- SWMU ST-66, Trestle Facility (ST-66)
- SWMU ST-72, Bldg 31046, Manzano Security Garage OWS (ST-72) (Former ST-265)
- SWMU ST-273, Bldg 617 Septic Tank and Leach Field (ST-273)
- SWMU ST-340, Bldgs 57001 and 57002 Septic Tank and Leach Field (ST-340)
- D. Corrective Measures Study (CMS)

1. Work Plans:

- SWMU 6-1, Landfill No. 1 (LF-01): We will complete and submit the abbreviated, focused CMS work plan.
- SWMU 6-4, Landfill No. 4,5,6 (LF-08): We will complete and submit the abbreviated, focused CMS work plan.
- SWMU 6-22, Lake Christian (OT-46): We will complete and submit the abbreviated, focused CMS work plan.
- SWMU ST-70, Kirtland AFB Oil/Water Separators (ST-70): We will complete and submit a CMS Work Plan.
- 2. Field Work and Study:
 - SWMU 6-1, Landfill No. 1 (LF-01): We will initiate and complete the CMS.
 - SWMU 6-4, Landfill No. 4,5,6 (LF-08): We will initiate and complete the CMS and associated field activities.
 - SWMU 6-22, Lake Christian (OT-46): We will initiate and complete the CMS and associated field activities.
 - SWMU 8-5, OWS, Bldg 255 (ST-201): We will continue activity on a focused CMS for no further action.

- SWMU 8-13, Bldg 1001/1002 OWS (ST-71)(Former ST-221): We will complete the CMS.
- SWMU 8-26, 2 OWSs, Bldg 1063 (ST-242 & ST-243): We will continue activity on a focused CMS for no further action.
- SWMU 8-28, OWS, Bldg 20338 (ST-250): We will continue activity on a focused CMS for no further action.
- SWMU 8-29, OWS, Bldg 20344 (ST-251): We will continue activity on a focused CMS for no further action.
- SWMU 8-31, 2 OWSs, Bldg 20348 (ST-252 & ST-253): We will continue activity on a focused CMS for no further action.
- SWMU 8-41, Waste Battery Storage Area, Bldg 20423 (ST-274): We will initiate activity on a focused CMS for No Further Action.
- SWMU 8-47, OWS, Bldg 20423 (ST-261): We will continue activity on a focused CMS for no further action.
- SWMU 8-53, Paint Shop Floor Drain to Rock Bed, Bldg 20681 (ST-335): We will continue activity on a focused CMS for no further action.
- SWMU 8-55, OWS, CE Bldg 20698 (ST-262): We will continue activity on a focused CMS for no further action.
- SWMU 8-58, Battery Storage Area, Bldg 57007 (ST-321): We will continue activity on a focused CMS for no further action.
- SWMU 9-14, Buried Caustic Drain Line, Bldg 617 (ST-270): We will continue activity on a focused CMS for no further action.
- SWMU 9-15, Neutralization Pit, Bldg 617 (ST-271): We will complete work on the CMS.
- SWMU 9-16, Evaporation/Infiltration Pond, Bldg 617 (ST-272): We will complete work on the CMS.
- SWMU 9-20, Bldg 909 Inactive Waste Accumulation Area (SS-62)(Former ST-277): We will initiate work on the CMS.
- SWMU 10-1, Sanitary Sewer Systems (ST-278, ST-279, ST-280, ST-281, ST-282, ST-284, & ST-327): We will continue activity on a focused CMS for no further action.
- SWMU 10-3, Waste Oil Storage Tank, Bldg 20205 (ST-249): We will continue activity on a focused CMS for no further action.
- SWMU 10-7, 41 Oil Water Separators, Sediment Traps, and Area Drains (ST-204 209, ST-212, ST-213, ST-215, ST-217, ST-218, ST-222 241, ST-244-246, ST-254 257, ST-259, ST-263, ST-264, & ST-267): We will continue activity on a focused CMS for no further action.
- SWMU WP-58, East Laundry (Bldg 20451) (WP-58): We will complete the CMS.
- SWMU ST-66, Trestle Facility (ST-66): We will continue activity on a focused CMS for no further action.
- SWMU ST-70, Oil /Water Separator, Holding Tank, Fuel Filter Drying Rack (Bldg 377) (ST-70) (Former ST-210): We will complete work on the CMS.
- SWMU ST-72, Bldg 31046, Manzano Security Garage OWS (ST-72) (Former ST-265): We will complete the CMS.

- SWMU ST-273, Bldg 617 Septic Tank and Leach Field (ST-273): We will continue activity on a focused CMS for no further action.
- SWMU ST-340, Bldgs 57001 and 57002 Septic Tank and Leach Field (ST-340): We will continue activity on a focused CMS for no further action.
- SWMU ST-341, Condensate Holding Tank and Evaporation Pond (ST-341): We will complete bioventing pilot studies.
- 3. Reports:
 - SWMU 6-30, Radioactive Burial 11 (RW-06): We will complete and submit the CMS report.
 - SWMU 6-32, Manzano Fire Training Area (FT-14): We will complete and submit the CMS report.
 - SWMU 9-15, Neutralization Pit, Bldg 617 (ST-271): We will complete and submit the CMS report.
 - SWMU 9-16, Evaporation Pond, Bldg 617 (ST-272): We will complete and submit the CMS report.
 - SWMU WP-58, East Laundry (Bldg 20451) (WP-58): We will begin preparation, complete, and submit the CMS report.
 - SWMU ST-64, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337): We will complete and submit the CMS report.
 - SWMU RW-68, Radium Dump/Slag Piles and Cratering Area (RW-68): We will complete and submit the CMS report.
 - SWMU ST-72, Bldg 31046, Manzano Security Garage OWS (ST-72) (Former ST-265): We will begin preparing the CMS report.
 - SWMU ST-341, Condensate Holding Tank and Evaporation Pond (ST-341): We will complete and submit the bioventing pilot study report.
- E. Voluntary and Interim Corrective Measures (ICMs):
 - 1. Work Plans:
 - SWMU 6-2, Landfill No. 2 (LF-02): We will submit the design implementation package for Tijeras Arroyo erosion control.
 - AOC SS-76, Fuel Tank Burn Area (SS-76): We will complete and submit the ICM work plan and quality program plan. The quality program plan will include a health and safety plan, sampling and analysis plan, and a construction quality plan.
 - 2. Field Work:
 - Site WP-26, Sewage Lagoons and Golf Course Main Pond (WP-26): We will complete ICM field activities for treating nitrate-contaminated groundwater at the Golf Course Main Pond.

- SWMU SS-69, Drum Storage Area (SS-69): We will complete field activities to transport and dispose of low-level radioactive waste at the Envirocare Disposal Facility in Clive, Utah.
- AOC SS-76, Fuel Tank Burn Area (SS-76): We will initiate and complete field activities for in-situ stabilization and off-site disposal of metals contaminated soil.
- AOC SS-79, Bldg 381 Spill Site (SS-79): We will dispose of stockpiled soil pending analytical results.
- AOC WP-87, GRABS Site Waste Pile (WP-87):): We will dispose of stockpiled soil pending analytical results.
- SWMU ST-341, Condensate Holding Tank and Evaporation Pond (ST-341): We will use our pilot test system to monitor and control the activelycontrolled passive bioventing and submit a report of test results. We will continue with field activities to include assembly, testing, and installation of the remote monitoring and control system hardware, and installation and modification of the system software. We will begin data collection with the system dependent on site availability.
- 3. Reports:
 - NRC Site OT-10, Radiation Training Sites 5 thru 8 (OT-10): We will submit the ICM report for channel stabilization to repair the left bank of Coyote Arroyo at Training Site 6.
 - SWMU 8-35, Bldg 471 Waste Oil UST (ST-214): We will prepare and submit the ICM/CMS report for horizontal vapor extraction wells.
 - SWMU WP-58, Bldg 20451, East Laundry (WP-58): We will complete and submit the ICM report.
 - SWMU ST-64, U.S. Army Corps of Engineers Vehicle Maintenance Yard (ST-64) (Former ST-337): We will complete and submit the ICM report.
 - SWMU SS-69, Drum Storage Area (SS-69): We will complete and submit the ICM report.
 - SWMU ST-70, Kirtland AFB Oil/Water Separators (ST-70): We will complete and submit the ICM report.
 - AOC SS-76, Fuel Tank Burn Area (SS-76): We will begin preparing the ICM report.
 - AOC SS-79, Bldg 381 Spill Site (SS-79): We will begin preparing the ICM report.
 - AOC WP-87, GRABS Site Waste Pile (WP-87):): We will begin preparing the ICM report.

F. Other Investigations and Activities:

1. Groundwater Monitoring: We will submit the report for the second annual sampling event and complete quarterly sampling Round 8.

2 Base-Wide Background and Hydrogeology: No activity planned.

3. TCE Characterization and Abatement: We will continue field activities to include installing the WYO 3 perched groundwater monitoring well and the WYO 4 regional groundwater monitoring well as part of the SWMU WP-339 RFI.

4. Nitrate Contamination: No activity planned.

5.. Management Action Plan Update: No activity planned.

6. No Further Action (NFA): We will continue preparing NFA documents for the following SWMUs:

- SWMU 6-3, Landfill 3 (LF-07)
- SWMU 6-7, Landfill A (LF-18)
- SWMU 6-8, Landfill B (LF-15)
- SWMU 6-10, Abandoned Landfill (LF-09)
- SWMU 6-11, Fill Area SE of Sewage Lagoons (LF-44)
- SWMU 6-15, Unnamed Dump (LF-45)
- SWMU 6-16, Kirtland Fire Training Area (FT-13)
- SWMU 6-24, Manzano Sewage Treatment Facility (WP-16)
- SWMU 6-31, McCormick Ranch Range (OT-28)
- SWMU 8-5, Oil/Water Separator, Bldg 255 (ST-201)
- SWMU 8-26, Two Oil/Water Separators, Bldg 1063 (ST-242, ST-243)
- SWMU 8-28, Oil/Water Separator, Bldg 20338 (ST-250)
- SWMU 8-29, Oil/Water Separator, Bldg 20344 (ST-251)
- SWMU 8-31, Two Oil/Water Separators, Bldg 20348 (ST-252, ST-253)
- SWMU 8-41, Waste Battery Storage Area, Bldg 20423 (ST-274)
- SWMU 8-47, Oil/Water Separator, Bldg 20423 (ST-261)
- SWMU 8-53, Paint Shop Floor Drain to Rock Bed, Bldg 20681 (ST-335)
- SWMU 8-55, Oil/Water Separator, CE Bldg 20698 (ST-262)
- SWMU 8-58, Battery Storage Area, Bldg 57097 (ST-321)
- SWMU 9-14, Buried Caustic Drain Line, Bldg 617 (ST-270)
- SWMU 10-1, Sanitary Sewer Systems (ST-278, 279, 280, 281, 282, 284, 327)
- SWMU 10-3, Waste Oil Storage Tank, Bldg 20205 (ST-249)
- SWMU 10-7, Oil/Water Separators, Sediment Traps, Area Drains (41 Sites)
- SWMU ST-66, Trestle Facility Oil/Water Separator and Pit (ST-66)
- SWMU ST-273, Bldg 618 Septic System (ST-273)
- SWMU ST-326, Waste Oil Storage Tank, Bldg 20375 (ST-326)
- SWMU ST-340. Bldgs 57001 and 57002 Septic System (ST-340)

7. Base-Wide Plan: We will continue scope and content development with NMED during monthly DoD/NASA/NMED partnering meetings.

8. HSWA Survey: We will complete an inventory and survey of all active oil/water separators and septic tanks to determine if any are currently receiving or anticipated to receive hazardous waste and will begin preparing the report of findings.

- 9. Post Closure Care:
 - Site WP-26, Sewage Lagoons and Golf Course Main Pond (WP-26): We will complete Post Closure Care field activities and begin preparing the report of findings.
- G. Program and Budget: No activity planned.

H. Restoration Advisory Board (RAB): We will hold our next meeting on October 29, 1998.

CHRISTOPHER B. DEWITT, R.P.G.

Chief, Restoration Branch Environmental Management Division