

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 31, 2010

Mr. Johnnie F. Guelker  
Assistant Manager for  
Environmental & Site Engineering Programs  
U.S. Department of Energy  
National Nuclear Security Administration  
Pantex Site Office  
P. O. Box 30030  
Amarillo, TX 79120-0030

**CERTIFIED MAIL**  
**91 7108 2133 3935 2028 7550**

Re: Transmittal of Initial Draft Class 3 Compliance Plan Modification  
U.S. DOE/NNSA Pantex Plant – Amarillo, TX  
Industrial Solid Waste Registration No. 30459  
Hazardous Waste Compliance Plan No. 50284  
EPA I.D. No. TX 4890110527  
ARTS #12759262-1; RN100210756; CN600125009

Dear Mr. Guelker:

The enclosed initial draft Compliance Plan modification and Technical Summary and Executive Director's Preliminary Decision were developed in response to your Class 3 modification application dated July 15, 2009 and subsequent supporting document dated December 1, 2009. The technical summary and executive director's preliminary decision briefly summarizes the application request.

Please note that the Compliance Plan modification is subject to further staff review and revision. Agency staff will be determining whether U.S. DOE/NNSA Pantex Plant has paid fees and penalties due to the Texas Commission on Environmental Quality (TCEQ). If you have any delinquent fees or penalties this may result in a recommendation to return your application or deny your compliance plan modification. Comments on the initial draft compliance plan modification should be submitted within thirty (30) days from the date of this letter to the Industrial & Hazardous Waste (I&HW) Permits Section. Questions on the initial draft modification should be directed to Ms. Jean X. Shaw, P.E. of the I&HW Permits Section at 512/239-1823. If responding by letter, please include mail code MC 130 in the mailing address.

Sincerely,

*M. Saif Anjum for*  
Tanveer Anjum, P.E., Manager  
Industrial & Hazardous Waste Permits Section  
Waste Permits Division

TA/JXS/sm

Enclosures

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

March 3, 2010

Description of Application

Applicant: U.S. DOE/NNSA Pantex Plant, Amarillo, TX  
Industrial Solid Waste Registration No. 30459  
Hazardous Waste Compliance Plan No. 50284  
EPA I.D. No. TX 4890110527

Location: U.S. DOE/NNSA Pantex Plant is located at the intersection of Highway 60 and FM 2373 on approximately 9100 acres. The plant is about 17 miles northeast of Amarillo in Carson County, Texas. The site is within the drainage area of Segment No. 0224 of the North Fork of the Red River Basin (North Latitude 35° 19'11", West Longitude 101° 35'07").

This facility is not located in an area affected by the Texas Coastal Management Program.

General: U.S. DOE/NNSA currently operates the Pantex Plant for assembling nuclear weapons from components received from other DOE plants, fabricating chemical high explosive components for nuclear weapons, surveillance, testing, and treatment of chemical high explosives, disassembling nuclear weapons, and maintaining, modifying, and non-explosive testing on weapon components.

The Pantex Plant historical waste management practices included thermal treatment of explosives, explosive components and contaminated liquids and solvents (including test residues of explosives and radionuclides); burial of industrial, construction, and sanitary waste in unlined landfills; disposal of solvents in pits or sumps; discharge of untreated industrial waste water to unlined ditches and playas; and the use of surface impoundments for the disposal of chemical constituents. These prior practices have resulted in the release of both chemical and radionuclide constituents to the soils and the perched groundwater. Chemical constituents primarily drive risk at the site. The contamination in the perched groundwater also poses a potential risk to the Ogallala Aquifer, a principal source of groundwater for the region.

The original Compliance Plan was issued on June 9, 2003, for a term of ten years.

Request: U.S. DOE/NNSA Pantex Plant has applied to the TCEQ for a Class 3 permit modification to update Compliance Plan No. 50284 in response to a request from a TCEQ letter dated June 23, 2009. The Compliance Plan modification application proposed the final ground-water monitoring for hazardous constituents in the Perched Aquifer and the Ogallala Aquifer. The Compliance Plan modification application also proposed the final control method to remediate ground-water quality to meet the Groundwater Protection Standard (GWPS). The Compliance Plan, when issued, will incorporate the corrective action requirements to replace the existing interim stabilization measure requirements. The Compliance Plan modification request

## TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Page 2

meets the requirements of 30 TAC 305.69(k) (C) for a Class 3 permit modification relating to Groundwater Protection.

Authority: A draft Compliance Plan modification has been prepared in accordance with applicable requirements of 30 TAC Chapters 335 and 305, which have been adopted under the authority of the TEXAS HEALTH AND SAFETY CODE ANN., Chapter 361 (Vernon Supp.), and Section 5.103, Texas Water Code Ann. (Vernon Supp.). The TCEQ and the EPA have entered into a Joint Permitting Agreement (JPA) whereby EPA accepts the applicant's information submitted through the State as a Federal application for purposes of implementing HSWA.

### Technical Information

A draft Class 3 Compliance Plan modification has been prepared to modify Compliance Plan No. 50284. The draft Compliance Plan modification contains the revisions described below:

- A. Defines the point of compliance and requires U.S. DOE/NNSA Pantex Plant to perform ground-water monitoring in specified point of compliance wells for the duration of the permit or until groundwater meets GWPS;
- B. Defines the GWPS which specifies hazardous constituent concentration limits to be achieved at the point of compliance by operation of the corrective action program;
- C. Specifies procedures to determine if the GWPS has been exceeded at the point of compliance;
- D. Defines the Corrective Action Program consisting of in-situ bioremediation systems, recovery well systems, and relevant appurtenances;
- F. Requires ground-water monitoring to measure the effectiveness of the Corrective Action Program;
- G. Authorizes the disposal of recovered ground water at the facility's on-site wastewater treatment system provided that this activity shall not violate the requirements of the facility's TPDES discharge permit, at an authorized deep injection well facility, other on-site management methods as authorized by the Executive Director, or off-site disposal at an authorized site;
- H. Requires ground-water monitoring for uncertainty management; and
- I. Revises the Sampling and Analysis Plan.

## TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Page 3

### Public Notice

The permittee has provided public notice of the requested modification in accordance with 30 TAC Sections 305.69(d) and 39.509.

### Opportunity for Public Hearing

Before a Compliance Plan Class 3 modification can be issued, the TCEQ will provide an opportunity for a hearing to the applicant and persons affected. If a hearing is requested, the Commission will determine whether to grant or deny the hearing requests. If the hearing requests are denied, the draft Compliance Plan Class 3 modification may be considered for issuance by the Commission or the Executive Director. If the hearing requests are granted, the hearings will be conducted by the State Office of Administrative Hearings. EPA will reach a decision on the HSWA portion of the joint Compliance Plan Class 3 modification based on the hearing record developed by the TCEQ. The EPA portion of the Compliance Plan implementing nonauthorized HSWA provisions will become effective thirty (30) days after the date of issuance if changes were required.

Decisions regarding the Compliance Plan provisions issued under State authority may be reconsidered in response to a Motion for Rehearing or a Motion for Reconsideration and by appeal to a District Court in Travis County. Decisions regarding the permit provisions issued under Federal authority may be reconsidered in accordance with the procedures of 40 CFR 124.19.

### Preliminary Decision

**General:** The Executive Director has made a preliminary decision that this proposed permit modification, if issued, meets all the statutory and regulatory requirements.

**Special:** The proposed Compliance Plan modification does not authorize variances or alternatives to required standards.

### Additional Information

**A. Technical information:**

Jean X. Shaw P.E., Project Manager  
Industrial & Hazardous Waste Permits Section  
Waste Permits Division  
Texas Commission on Environmental Quality  
Mail Code MC 130,  
P. O. Box 13087  
Austin, Texas 78711-3087  
512/239-2334

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Page 4

B. Procedural and public hearing information:

Office of Public Interest Counsel  
Texas Commission on Environmental Quality  
Mail Code MC 103  
P. O. Box 13087  
Austin, Texas 78711-3087  
512/239-6363

Prepared by:



Jean X. Shaw P.E., Project Manager  
Industrial & Hazardous Waste Permits Section  
Waste Permits Division  
Texas Commission on Environmental Quality



Texas Commission on Environmental  
Quality  
Austin, Texas  
COMPLIANCE PLAN FOR  
INDUSTRIAL SOLID WASTE  
MANAGEMENT SITE issued under  
provisions of TEXAS  
HEALTH AND SAFETY CODE ANN.  
Chapter 361 and Chapter 26 of the Texas  
Water Code

COMPLIANCE PLAN NO. 50284  
EPA ID. NO. TX4890110527  
ISWR NO. 30459

This Compliance Plan is issued in conjunction with  
Permit No. 50284

This Compliance Plan supersedes and replaces  
Compliance Plan No. 50284 issued October 21, 2003

Name of Permittee:

U.S. Department of Energy/National Nuclear  
Security Administration - Pantex Plant  
FM 2373 and U.S. Highway 60  
P.O. Box 30030  
Amarillo, TX 79120

Site Owner:

U.S. Department of Energy/National Nuclear  
Security Administration - Pantex Plant  
FM 2373 and U.S. Highway 60  
P.O. Box 30030  
Amarillo, TX 79120

Registered Agent for Service:

Not Applicable

Classification of Site:

Hazardous Industrial Solid Waste Closure and  
Post-Closure Care

The Permittee is required to conduct the Corrective Action and Groundwater Monitoring Programs in accordance with limitations, requirements, and other conditions set forth herein. All references herein refer to the Compliance Plan unless the Permit is specifically referenced. This Compliance Plan is issued subject to the rules and other Orders of the Commission and laws of the State of Texas. This Compliance Plan does not exempt the Permittee from compliance with the Texas Clean Air Act.

This Compliance Plan remains in effect until amended or revoked by the Commission. This Compliance Plan will be reviewed upon expiration of Permit No. 50284 and modified as necessary to assure compliance with 30 TAC Chapters 305, 335 and 350, where applicable.

ISSUED:

---

For The Commission

**TABLE OF CONTENTS**

I.	GENERAL INFORMATION (AND APPLICABILITY).....	3
II.	AUTHORIZED COMPONENTS AND FUNCTIONS OF CORRECTIVE ACTION AND COMPLIANCE MONITORING SYSTEMS.....	4
III.	GENERAL DESIGN, AND CONSTRUCTION REQUIREMENTS.....	8
IV.	CORRECTIVE ACTION AND COMPLIANCE MONITORING OBJECTIVES AND THE GROUNDWATER PROTECTION STANDARD .....	8
V.	CORRECTIVE ACTION PROGRAM .....	11
VI.	GROUNDWATER MONITORING PROGRAM REQUIREMENTS.....	12
VII.	RESPONSE AND REPORTING .....	16
VIII.	CORRECTIVE ACTION AND INTERIM CORRECTIVE MEASURES (ICMs) FOR SOLID WASTE MANAGEMENT UNITS.....	17
IX.	FINANCIAL ASSURANCE [ <b>Reserved</b> ].....	21
X.	GENERAL PROVISIONS .....	21
XI.	FORCE MAJEURE.....	22
TABLE I - Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring.....		23
TABLE II - Solid Waste Management Units and/or Areas of Concern Addressed in Provision VIII .....		30
TABLE III - CORRECTIVE ACTION PROGRAM Uncertainty Management Monitoring Table of Constituents of Concern and the Groundwater Protection Standard Monitored Every Five-Years .....		44
TABLE IIIA - CORRECTIVE ACTION PROGRAM Table of Indicator Parameters by Indicator Areas and the Groundwater Protection Standard .....		48
TABLE IV - COMPLIANCE MONITORING PROGRAM [ <b>Reserved</b> ] Table of Hazardous and Solid Waste Constituents and Quantitation Limits for Compliance Monitoring .....		55
TABLE IVA - COMPLIANCE MONITORING PROGRAM [ <b>Reserved</b> ] Table of Detected Hazardous Constituents and the Groundwater Protection Standard for Compliance Monitoring.....		56
TABLE V - Designation of Wells .....		57
TABLE VI Compliance Period for RCRA-Regulated Units [ <b>Reserved</b> ] .....		58
TABLE VII - Reporting Requirements.....		59
TABLE VIII - Compliance Schedule [ <b>Reserved</b> ] .....		64
ATTACHMENTS:		
A - Facility Site Maps		
Sheet 1 of 26 Facility Site Map .....		66
Sheet 2 of 26 through Sheet 22 of 26 Solid Waste Management Unit Location Maps.....		67
Sheet 23 of 26 through Sheet 26 of 26 Well Location Maps.....		89
B - Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications .....		93
C - Public Participation in HSWA Corrective Action.....		97

I. GENERAL INFORMATION (AND APPLICABILITY)

- A. U.S. Department of Energy/National Nuclear Security Administration – Pantex Plant (Pantex) is located on approximately 9100 acres in Carson County, approximately 17 miles northeast of Amarillo, Texas, at the intersection of Highway 60 and FM 2373. The facility is in the drainage area of Segment No. 0224 of the North Fork of the Red River Basin (North Latitude 35°19'11" West Longitude 101°35'07").

The term "Uppermost Aquifer" as referenced in this Compliance Plan refers to the perched aquifer along with any hydraulically interconnected lower aquifers. Where the perched aquifer is not present, the Ogallala Aquifer and any hydraulically interconnected lower aquifers are considered the Uppermost Aquifer. Typically, the perched aquifer is a discontinuous saturated interval encountered beneath the site at a depth from approximately 200 to 300 feet below ground surface (bgs). The perched aquifer accumulates on top of a fine grained zone (FGZ) that is primarily composed of interbedded silts and clays of various thickness from a few feet to 140 feet, with an average thickness of 40 feet within the Plant boundary. The FGZ transitions into coarser-grained, more permeable materials to the south and east of the Pantex facility. The perched groundwater flow direction is generally to the southeast; however, the flow direction is to the southwest on the western side of the Plant's operational areas. Perched saturation in the vicinity of Pantex varies from less than 1 foot at the outer edges to approximately 80 feet underneath Playa 1. The Ogallala Aquifer is typically composed of fluvial channel deposits of gravels, sands and silts and has a saturated thickness that varies greatly across the site (increases in saturated thickness from south to north below the facility). The Ogallala Aquifer ranges in depth from approximately 340 ft bgs to the south of Pantex to approximately 500 feet bgs at the northern Plant boundary. The Ogallala Aquifer's flow direction is generally north/northeast because of offsite subsurface structural geology and other offsite influences.

Language for both the Corrective Action Program (30 Texas Administrative Code [TAC] §335.166) and the Compliance Monitoring Program (30 TAC §335.165) **[Reserved]** is included in this Compliance Plan for reference and as contingency for future changes in accordance with Provision IV.F. Applicability of specific Corrective Action Program or Compliance Monitoring Program **[Reserved]** requirements depends on the status of the units, as defined in Provisions I.B through I.D and Table I.

- B. The Compliance Plan is specific to the waste management units listed in Table I (Items A and B) **[Reserved]** and depicted in Attachment A, for which the groundwater Corrective Action Program and Compliance Monitoring Program **[Reserved]** apply, pursuant to 30 TAC §335.166 and §335.165, for releases from RCRA-regulated units.
- C. The Compliance Plan is specific to the waste management units listed in Table I (Item D) **[Reserved]** and depicted in Attachment A, for which alternative requirements for the groundwater Corrective Action Program apply, pursuant to 30 TAC §335.151, §335.156 and Chapter 350, for commingled releases from RCRA-regulated units and one or more solid waste management units (SWMUs) and/or areas of concern (AOCs).

[I.]

- D. The Compliance Plan is specific to the SWMUs and/or AOCs listed in Table I (Item C) and depicted in Attachment A, for which the Corrective Action Program applies pursuant to 30 TAC §335.167 and Chapter 335, Subchapter S, and/or Chapter 350 for releases from the SWMU.
- E. The Compliance Plan is specific to the SWMUs and/or AOCs listed in Table II for which investigation and necessary corrective action applies pursuant to 30 TAC §335.167 and Chapter 335, Subchapter S, and/or Chapter 350 and Provision VIII of this Compliance Plan.
- F. The Compliance Plan applies to any SWMU and/or AOC discovered subsequent to issuance of this Compliance Plan excluding spills and discharges regulated pursuant to requirements contained in 30 TAC 327. The Permittee shall notify the executive director within fifteen (15) days of confirmation of such a discovery. Within ninety (90) days of discovering a SWMU or AOC, the Permittee shall complete the following:

Submit a RCRA Facility Assessment (RFA) report for that SWMU and/or AOC which shall be based on U.S. EPA RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769 or subsequent revisions. The purpose of the RFA is to identify releases or potential releases of hazardous waste, hazardous constituents or other constituents of concern from SWMU and/or AOC that may require corrective action. If the RFA indicates there is no release, the Permittee shall submit the RFA report to document results and the requirements of 30 TAC Chapter 350 shall not apply. However, if the RFA indicates that there is a release or a potential for release that warrants further investigation, the Permittee shall conduct an investigation and necessary corrective action based on 30 TAC Chapter 350 requirements, applicable guidance, and the approved schedules in accordance with Provision VIII. Upon written approval of the RFA, the Permittee shall include the newly discovered SWMU and/or AOC with each groundwater report in accordance with Table VII, and include the new SWMU and/or AOC on Tables I or II as appropriate, with the next Compliance Plan modification, amendment or renewal.

- G. All dates in this Compliance Plan shall be referenced to the date of issuance of this Compliance Plan by the Texas Commission on Environmental Quality (TCEQ) unless otherwise specified. This Compliance Plan was developed based on the Compliance Plan Application to modify the Compliance Plan dated June 15, 2009 and revision dated December 1, 2009 which contained a Sampling and Analysis Plan dated April 2009.

II. AUTHORIZED COMPONENTS AND FUNCTIONS OF CORRECTIVE ACTION AND COMPLIANCE MONITORING SYSTEMS

Corrective Action Systems are required for units specified in Table I, Items A, B, C, and D. The Permittee is authorized to install and operate the Corrective Action System components specified in Provisions II.A through II.J, subject to the limitations contained herein. Compliance Monitoring System components [**Reserved**] for units listed in Table I, Item B are specified below in Provision II.K.

[II.]

Corrective Action Systems:

- A. Groundwater monitoring system may at a minimum consist of the following categories of wells listed in Table V, to monitor groundwater quality. An application to modify or amend the Compliance Plan is required to change the category or wells listed in Table V.
1. Background Well(s) unaffected by the operation of the facility.
  2. Point of Compliance (POC) Wells to demonstrate compliance with the Groundwater Protection Standard (GWPS).
  3. Point of Exposure (POE) Wells, to demonstrate compliance with the GWPS and evaluate the effectiveness of the remediation program.
  4. Alternate Point of Exposure (APOE) Wells to demonstrate compliance with the GWPS at a location other than the prescribed POE; and in maintaining a Plume Management Zone (PMZ) in accordance with 30 TAC §350.33.
- B. The Permittee is authorized to install and operate the following additional Corrective Action System wells to monitor groundwater quality and hydrogeological conditions of the aquifer as designated in Attachment A. The Permittee may propose changes to the following Corrective Action System wells as part of the reporting requirements in Table VII (Item 12) and shall become part of the Compliance Plan upon approval by the executive director. The purpose is to provide the permittee with the flexibility to alter the groundwater monitoring system and Corrective Action System designs, as necessary, to proactively address changing environmental conditions without modification or amendment to the Compliance Plan.
1. Corrective Action Observation (CAO) Wells to evaluate the lateral and vertical extent of groundwater contamination in the Uppermost Aquifer and evaluate the effectiveness of the remediation program.
  2. Corrective Action System (CAS) Wells to remediate and/or contain contaminated groundwater.
  3. Attenuation Monitoring Point (AMP) Wells, located within the migration pathway of a chemical of concern which demonstrates that the GWPS will not be exceeded at the applicable point of exposure.
  4. Supplemental Wells to gauge hydrogeologic conditions of the aquifer.
- C. Groundwater Corrective Action System to effect withdrawal, treatment, and/or containment of contaminated groundwater and non-aqueous phase liquids (NAPLs) by means of recovery wells, interceptor trenches, bioremediation, air sparging and/or another alternate Corrective Action System design. Any alternate Corrective Action System designs proposed by the Permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the

[II.C.]

performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the executive director. The type of Corrective Action System in operation at the facility and an evaluation of system performance shall be reported in accordance with Table VII.

- D. Collection and conveyance system to store recovered groundwater and NAPLs, if found, prior to disposal at authorized facilities. If the recovered groundwater is characteristically hazardous and/or is contaminated with listed hazardous waste and the collection system does not meet the wastewater treatment unit exemption under 30 TAC §335.2(f) and §335.41(d), the collection system shall comply with the following regulations: 1) If the contaminated groundwater is stored for less than ninety (90) days without a permit or interim status, then the container and tank collection systems shall comply with provisions of 30 TAC §335.69(a)(1) / 40 CFR Part 265 Subparts I and J; 2) If the contaminated groundwater is stored for more than ninety (90) days, then the container and tank collection system shall comply with the provisions of 30 TAC §335.152(a)(7) & (8) / 40 CFR Part 264 Subparts I and J. The collection and conveyance system shall consist of the following components:
1. A groundwater corrective action system.
  2. A groundwater storage system.
  3. Appurtenances for the collection and conveyance of recovered contaminated groundwater and NAPLs, if applicable.
- E. Treatment system to reduce the concentration of hazardous constituents in contaminated groundwater to the GWPS specified in Table III by means of biological, physical, and chemical treatment processes.
- F. Groundwater containment system to inhibit contaminated groundwater with concentrations above Table III GWPS from migrating beyond the influence of the Corrective Action System.
- G. Injection of fresh or recovered groundwater, after treatment, into the contaminated aquifer in accordance with 30 TAC §331.9-10.
- H. The following handling methods are authorized for recovered groundwater having concentrations of hazardous constituents exceeding the GWPS:
1. Treatment through an on-site wastewater treatment system and discharge via a permitted outfall in compliance with a current industrial wastewater discharge permit.
  2. Treatment of recovered groundwater by means of air stripping, ion-exchange, chemical precipitation, advanced oxidation, biological treatment, and carbon adsorption. The air stripper shall be maintained in compliance with applicable air quality regulations.

[II.H.]

3. Disposal at permitted deep injection well facility.
4. Disposal at other authorized on-site facility or permitted off-site facility.
5. Any other methods approved by the executive director.

The method(s) utilized for handling, disposing and recording volumes of all recovered/purged contaminated groundwater shall be reported in accordance with Table VII.

- I. Recovered NAPLs, if found, shall be managed (treated, stored, and disposed), or recycled in an authorized on-site unit(s) or an off-site facility.
- J. The Corrective Action Program shall consist of the system components of Provisions II.A through II.I, to be operated according to the plans and specifications as approved in Provision III.A and the specifications of this Compliance Plan.
  1. If groundwater recovery wells are utilized in the Corrective Action System, the flow rate at each Recovery Well shall be set and recorded. These flow rate data shall be used to calculate a quarterly and annual total flow which shall be reported in accordance with Table VII of this Compliance Plan.
  2. All Corrective Action System components shall be maintained in a functional and leak-free condition. All above ground collection system pipes shall be inspected weekly. In addition, the area surrounding the wells shall be inspected weekly for visible signs indicating leaks in buried sections of the collection system. If a release of reportable quantity is detected in any part of the collection system, it must be reported within twenty-four (24) hours to the local TCEQ Region Office, and immediate action must be taken to stop the release and resolve the problem.
  3. The Permittee shall notify the executive director of any scheduled or non-scheduled periods of Corrective Action System shutdown, Corrective Action System malfunction, or treatment system shutdown for maintenance lasting more than thirty (30) days. The Permittee shall notify the executive director in writing no later than fifteen (15) days following the date the Permittee determines that the shutdown will last more than thirty (30) days. All shutdowns and malfunctions, irrespective of duration, shall be recorded in the facility's inspection log, and shall be made available at the executive director's request. The operational efficiency of the Corrective Action Systems shall be reported in accordance with Table VII.

Compliance Monitoring Systems:

- K. [Reserved]

### III. GENERAL DESIGN AND CONSTRUCTION REQUIREMENTS

A. All plans submitted with the Compliance Plan Application referenced in Provision I.G concerning the design, construction, and operation of the authorized components of the Corrective Action and Groundwater Monitoring Programs are approved subject to the terms established by this Compliance Plan. All plans must comply with this Compliance Plan and TCEQ Rules. Any alternate Corrective Action System design proposed by the Permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the executive director.

B. Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

For all wells to be constructed after issuance of this Compliance Plan that do not meet the well construction specifications identified in Attachment B, the Permittee shall submit to the executive director the proposed well location and construction diagram for approval at least sixty (60) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. These requirements may be met through submittal of a work plan by the Permittee and subsequent approval by the executive director. Well installation shall commence upon written approval of the executive director. Wells constructed prior to issuance of this Compliance Plan may be utilized as groundwater monitoring wells if they meet the standards of Attachment B or are otherwise authorized by issuance of the Compliance Plan.

Unless the Permittee proposes an alternate well design that will result in wells of equivalent performance, each well installed after issuance of this Compliance Plan shall follow the design specifications contained in Attachment B of this Compliance Plan. The Permittee shall follow the certification and reporting requirements for installation of new, plugging/abandonment and replacement of existing wells as specified in Attachment B and Table VII.

C. The Permittee shall not install or maintain any drinking water or supply wells that are screened within plumes of groundwater contamination at the facility.

### IV. CORRECTIVE ACTION AND COMPLIANCE MONITORING OBJECTIVES AND THE GROUNDWATER PROTECTION STANDARD

Corrective Action Objectives are listed in Provisions IV.A through IV.F. Compliance Monitoring Objectives are reserved.

[IV.]

Corrective Action and Compliance Monitoring Objectives for units specified in Table I

- A. The GWPS defines the concentration limits of hazardous constituents, with respect to groundwater quality restoration in the Uppermost Aquifer and any lower interconnected aquifers, which are to be achieved at the POC, (and POE, and APOE, if applicable) and beyond in accordance with Provision V.A by operation of the Corrective Action Program at this facility.
- B. POC wells are designated in Attachment A and further defined for purposes of this Compliance Plan by Table V, which also identifies the POE (and APOE, if any) wells for which groundwater monitoring procedures will apply (Provision VI).
- C. For Corrective Action, the hazardous constituents detected in groundwater and determined to be risk-driver are specified in Table IIIA. For uncertainty management monitoring a modified 40 CFR 264 Appendix IX list of analytes that are reasonably expected to be in or derived from waste placed in the units are specified in Table III. Additional constituents shall be added to Tables IIIA (Corrective Action) through a Compliance Plan modification or amendment in accordance with Provision X.D. Groundwater analysis for each hazardous constituent shall utilize an analytical method, listed in the United States Environmental Protection Agency publication SW-846 Test Methods for Evaluating Solid Waste, Third Edition, November 1986, (USEPA SW-846) and as listed in the July 8, 1987 edition of the Federal Register and later editions, which is capable of measuring the concentration of the hazardous constituent at a level equal to or less than the corresponding value specified in Tables III and IIIA except when matrix interference prevents achievement of that level.
- D. GWPS are specified in Column B of Tables III and IIIA (Corrective Action). The GWPS shall be the values for statistical comparisons unless Tables III, or IIIA are amended in accordance with current guidance and regulations, or if any other accepted levels are promulgated by the TCEQ or the Environmental Protection Agency. The values in Tables III, or IIIA will change as updates to 30 TAC §335.160 and Chapter 350 or Chapter 335 Subchapter S are promulgated. Additionally, the values in Table III and IIIA may change based on review of the risk-based cleanup values during the EPA's 5-year Review, as specified in Table VII. The executive director or the Permittee may request to replace concentration limits through a modification or amendment to this Compliance Plan in accordance with 30 TAC §305 Subchapter D.
- E. Compliance Period for each unit is specified in Table VI [**Reserved**].
- F. The GWPS Achieved for Corrective Action.

Corrective Action Program:

1. Achievement of the GWPS in accordance with Provision V.A is defined by the results of the data evaluation of Provision VI.D wherein the concentrations of hazardous constituents have been reduced by the Corrective Action Program

[IV.F.1.]

(Provision V) to concentrations of hazardous constituents that do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the GWPS of Table III.

2. If the GWPS is achieved at the RCRA-regulated units or waste management areas in accordance with Provision V.A during the Compliance Period, the Permittee may apply to modify or amend this Compliance Plan to revise the Corrective Action Program to the extent necessary to demonstrate by means of the Groundwater Monitoring Program that the GWPS will not be exceeded during the remainder of the Compliance Period.
3. If the GWPS is not achieved at the RCRA-regulated units or waste management areas in accordance with Provision V.A during the Compliance Period, the Corrective Action Program must continue until the GWPS has not been exceeded in all wells for that corrective action area for three (3) consecutive years.
4. If the GWPS established in this Compliance Plan for the RCRA-regulated unit or waste management area have not been exceeded for three (3) consecutive years at the end of the Compliance Period, then the Permittee must, within ninety (90) days, submit an application for a Compliance Plan/Permit modification or amendment to establish a Compliance Monitoring Program or a Detection Monitoring Program for the aquifer(s) during the remaining portion of the 30-year post-closure care period in accordance with 40 CFR Part 264.117. If the 30-year post-closure care period has expired, the Permittee may request groundwater monitoring for that RCRA-regulated unit or waste management area be discontinued. Until approval of the request, the Permittee shall continue groundwater monitoring under current Compliance Plan provisions for each RCRA-regulated unit or waste management area.
5. If the GWPS established in this Compliance Plan for SWMUs and/or AOCs listed in Table I, Item C have not been exceeded for three (3) consecutive years in all wells for that unit, then the Permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for that unit.
6. If the GWPS established by this Compliance Plan for those units/areas listed in Table I, Item D (regarding alternative corrective action requirements for commingled plumes) have not been exceeded for three (3) consecutive years for all wells for those units/areas, and the performance standards of 30 TAC §335.8 and §335.167 are met, then the Permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for those units/areas.

Compliance Monitoring Program

- G. [Reserved]

## V. CORRECTIVE ACTION PROGRAM

The Corrective Action Program applies to units specified in Table I, Items A, C and D. The Corrective Action Program shall remediate, recover, and/or contain contaminated groundwater from the Uppermost Aquifer and any interconnected lower aquifers, if applicable. The Corrective Action Program shall consist of the system components of Provision II, to be operated according to the specifications of this Compliance Plan. The Permittee shall conduct the Corrective Action Program until the performance standards of Provision V.A are met. The Permittee shall initiate the Corrective Action Program immediately upon issuance of this Compliance Plan, except where other specific TCEQ response deadlines may apply.

### A. Performance Standard

The Permittee shall conduct the Corrective Action Program to remedy the quality of groundwater by removing or treating in-place the hazardous constituents so as to achieve the concentration limits specified in the GWPS of Provision IV of this Compliance Plan in accordance with the following:

1. At the POC (POE and APOE, if any) and between the POC (POE and APOE, if any) and the downgradient facility property line;
2. Beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the executive director that, despite the Permittee's best efforts, the necessary permission from the property owner(s) was not received to undertake such action. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied;
3. Operate the Corrective Action System so as to intercept, contain and/or treat the contamination in the Uppermost Aquifer unless the system is under repair or maintenance;
4. Recommend changes to the configuration of the Corrective Action System at any time that it is determined that the contamination present in the Uppermost Aquifer, deeper zone, or any interconnected lower aquifers is not being effectively contained and/or remediated; and
5. The Permittee is required to actively remove NAPLs from the Uppermost Aquifer and any interconnected aquifers wherever found, to the extent technically practicable.

## VI. GROUNDWATER MONITORING PROGRAM REQUIREMENTS

The Permittee shall install, operate and maintain the Groundwater Monitoring System to evaluate wells near sources of contamination to ensure no new contamination is found over time, or to evaluate the effectiveness of the Corrective Action Program for those units undergoing remediation as applicable. The Groundwater Monitoring System, shall be composed of wells specified in Table V, and in Attachment A maps and tables, and shall include at a minimum POC, and other wells as necessary which have been approved by the executive director (e.g. POE, APDE, etc.).

### A. Waste Management Area Specific Background Groundwater Quality

The Permittee submitted to the executive director for review and approval a plan to determine site-specific background values of the naturally-occurring hazardous constituents of Table III, IIIA (for Corrective Action). The site-specific background values of the naturally-occurring hazardous constituents specified in Table III and IIIA are based on the approved background values established in the report entitled Risk Reduction Rule Guidance to the Pantex RFI, dated April 2002.

### B. Sampling and Analysis Plan

1. Wells shall be sampled according to the Sampling and Analysis Plan referenced in Provision I.G. The Sampling and Analysis Plan is hereby incorporated into the Compliance Plan by reference as if set out fully herein. The Permittee or the executive director shall propose modifications to the plan, as necessary to reflect current methods in U.S. EPA Publication SW-846, Test Methods for Evaluating Solid Waste, and/or American Society for Testing and Materials (ASTM) Standard Test Methods and/or other methods accepted by the TCEQ. The laboratory methods utilized for groundwater analysis shall be capable of measuring concentration of each hazardous constituent equal to or less than the GWPS values in Table III or IIIA. Any and all revisions to the plan shall become conditions of this Compliance Plan at the beginning of the first quarter following approval by the executive director.
2. An up-to-date and approved Sampling and Analysis Plan shall be maintained at the facility and made available for inspection upon request.

### C. Sampling and Analysis Frequencies and Parameters

1. Frequencies of sampling are defined below:
  - a. "Week" and "month" shall be based upon a calendar week and month;
  - b. "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);

[VI.C.1.]

- c. "Semiannual" shall be based on divisions of the calendar year (i.e., January through June, July through December) and consist of two consecutive quarters;
  - d. "Annual" or "Year" shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the "first year", "second year", etc; and,
  - e. "Calendar year" shall be based on divisions of the calendar (i.e. January through December).
2. Sampling of wells shall commence during the first complete quarter after issuance of this Compliance Plan. Thereafter, samples shall be collected on the frequency specified in the Sampling and Analysis Plan referenced in Provision I.G. Data evaluations shall be completed within ninety (90) days from the end of the sampling period unless QA/QC procedures show that data is unacceptable and reanalyses or resampling must be performed. In such cases, the executive director will be notified as soon as it becomes apparent that the 90-day time limit will not be met.
  3. In the first and subsequent years of groundwater monitoring, the wells shall be sampled and analyzed according to the following schedules:
    - a. Corrective Action Monitoring for units specified in Table I, Items A, C and D.
      - i. Each Background, POC, POE, APOE well listed in Table V; and AMP (if applicable), CAO, and CAS Well depicted in Attachment A shall be sampled and analyzed in accordance with the approved Sampling and Analysis Plan referenced in Provision I.G for the constituents of Table IIIA until the achievement of the GWPS in accordance with Provision IV.F.
      - ii. Each CAO Well, AMP Well (if applicable) and CAS Well shall continue to be sampled according to Provision VI.C until any changes to these groups of wells are approved by the executive director pursuant to Provision II.C.
      - iii. Each Well of Table V shall be sampled for the constituents of Table IIIA according to Provision VI.C until analytical results satisfy the
      - iv. GWPS of Table IIIA for all wells of Table V of that unit or area for two consecutive sampling events. All wells listed in Table V shall then be sampled and analyzed

[VI.C.3.a.iv.]

semiannually for the constituents of Table III until all constituents of Table III are below the GWPS for all Table V Wells of that unit or area in accordance with Provision IV.F.

- v. If the GWPS is achieved in all Wells (Background, POC, POE, APOE, AMP, CAO and CAS) in accordance with Provision IV.F.1, then the Permittee may apply to modify or amend the Compliance Plan according to Provisions IV.F.2, IV.F.4, IV.F.5, or IV.F.6.
- vi. Any well with NAPLs detected in the wellbore shall be considered as non-compliant with the GWPS and is not required to be analyzed for the constituents of Table III or IIIA.

b. Compliance Monitoring for units specified in Table I, Item B. **[Reserved]**

4. Field Determination Requirements - All Wells Specified in Table VII (Item 12).

- a. Water level measurements relative to Mean Sea Level shall be measured to within 0.1 ft and shall be performed during each sampling event effective immediately with issuance of this Compliance Plan. Measurements shall be taken in all monitor wells specified in this Compliance Plan.
- b. Field determinations of pH, Temperature and Specific Conductivity are required for all wells of Table V and as depicted in Attachment A, excluding wells containing NAPLs. Turbidity in nephelometric turbidity units (NTUs) is required if micropurging techniques are utilized during sample collection.
- c. Field observations including descriptions of appearance (clarity, color, etc.) shall be recorded for each sampling event for all wells of Table V and wells depicted in Attachment A, excluding wells containing NAPL.
- d. The total depth of each well which is not equipped with a dedicated pump, shall be measured during each sampling event. Total depth of each well which is equipped with a dedicated pump, shall be measured: 1) when pumps are removed for maintenance; or 2) the groundwater production rate of the dedicated pump in a recovery well decreases by 25% from the initial production capacity when the pump was installed; or 3) at least every five (5) years for monitoring wells equipped with a dedicated pump. The measured total depth shall be compared to the total depth recorded on the well construction log. Should a comparison of the measured and the

[VI.C.4.d]

recorded total depth reveal that greater than 20% of the well screen has been silted in, the Permittee shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.

- e. All wells specified in Table VII (Item 12) shall be inspected during each sampling event in accordance with specifications in the Sampling and Analysis Plan. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well unless the repairs are complex. In such cases, the executive director will be notified as soon as it becomes apparent that the 90-days time limit will not be met. Complex repairs shall be conducted based upon a schedule approved by the executive director.

D. Data Evaluation Procedures

Data evaluation in accordance with this provision shall be performed for the duration of the Corrective Action Monitoring and Compliance Monitoring [**Reserved**] programs for all wells within ninety (90) days from the end of the sampling period unless QA/QC procedures show that data is unacceptable and reanalyses or resampling must be performed. When evaluating the monitoring results of each well pursuant to Provision VI for the constituents of Tables III or IIIA for Corrective Action Monitoring, or Tables IV or IVA for Compliance Monitoring [**Reserved**], the Permittee shall either:

1. Corrective Action Monitoring: Directly compare the value of each constituent to the respective concentration limit of Table III or IIIA and determine if it is less than, equal to, or greater than the concentration limits. If the values for all the constituents are less than or equal to the respective concentration limits, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event; or,

Compliance Monitoring: [**Reserved**]

2. Compare the value of each constituent to its respective concentration limit of Table III or IIIA for Corrective Action Monitoring, or Table IV or IVA for Compliance Monitoring [**Reserved**], using one of the following procedures:
  - a. The Confidence Interval Procedure for the mean concentration based on a normal, log-normal, or non-parametric distribution. The 95 percent confidence coefficient of the t-distribution will be used in constructing the confidence interval (Chapter 21 of Statistical Analysis of Ground Water Data at RCRA Facilities-Unified Guidance, U.S. EPA, March 2009), and subsequent updates acceptable to the executive director. The confidence interval upper limit for each constituent shall be compared with the corresponding concentration limit in Table III or IIIA for Corrective Action Monitoring, or Table IV or IVA for Compliance Monitoring [**Reserved**].

[VI.D.2.a]

To be considered in compliance, the confidence interval upper limit for a well in question must not exceed the tabled concentration limit. A confidence interval upper limit above the tabled concentration limit shall be considered as evidence of statistically significant contamination; or,

- b. An alternative statistical method proposed by the Permittee and approved by the TCEQ. Any proposed alternative method must be appropriate with respect to distributional assumptions and must provide reasonable control of both false positive and false negative error rates.
3. Within thirty (30) days of an initial data evaluation that determines concentration limits have been exceeded in a well pursuant to Provisions VI.D.1 or VI.D.2, the Permittee may resample and repeat the analysis to verify concentration limits have been exceeded. If the second analysis indicates that the sample does not exceed the concentration limits, then the well shall be considered compliant with the concentration limits for the sampling event.

## VII. RESPONSE AND REPORTING

- A. Corrective Action Monitoring for units specified in Table I, Items A, C, or D (if alternative corrective action requirements apply).
  1. If the Permittee or the executive director determines that the Corrective Action Program required by this Compliance Plan no longer satisfies the requirements of 30 TAC §335.166 or §335.167, the Permittee must, within ninety (90) days of either the Permittee's determination or executive director's notification, submit an application for a Compliance Plan modification or amendment to make any appropriate changes to the Corrective Action Program which will satisfy the regulations.
  2. If the executive director determines that the lateral or vertical extent of groundwater contamination is not delineated, the Permittee must, in accordance with an approved schedule specified in the approved Pantex Plant Ogallala and Perched Groundwater Contingency Plan dated April 2009 (Contingency Plan), initiate an investigation to determine the extent of the contamination based on the Practical Quantitation Limits (PQLs) or Method Quantitation Limit (MQL) of applicable standards as required or approved by the executive director.
  3. This section applies only if POEs are defined in Table V and a GWPS is assigned at the POE; and attenuation action level (if applicable) is assigned to its respective attenuation monitoring point. If any constituent in Table III and IIIA is confirmed to be above PQL or background values at the POE, then contingency actions specified in the Contingency Plan must be initiated. If during two (2) consecutive sampling events the GWPS is exceeded at the POE, or the attenuation action level (if applicable) is exceeded at its respective attenuation monitoring point, then interim protective measures must be initiated as specified in the Contingency Plan.

[VII.]

- B. Compliance Monitoring for units specified in Table I, Item B [**Reserved**]
- C. For Corrective Action and Compliance Monitoring Programs [**Reserved**], the Permittee shall submit groundwater monitoring reports in accordance with the frequency specified in Table VII, and contain the information listed in Table VII required for the specific program(s) that are applicable.

VIII. CORRECTIVE ACTION AND INTERIM CORRECTIVE MEASURES (ICMs) FOR SOLID WASTE MANAGEMENT UNITS

A. Corrective Action Obligations

The Permittee shall conduct corrective action as necessary to protect human health and the environment for all releases of hazardous waste, hazardous constituents listed in Appendix

VIII and/or 40 CFR Part 264, Appendix IX and/or other COCs from any SWMU and/or AOC according to 30 TAC §335.167. Corrective action shall consist of an Affected Property Assessment (APA), determination of protective concentration levels, selection of a remedy standard (if necessary), development and implementation of a response action (if necessary), and submittal of required reports according to 30 TAC Chapter 350.

In the case of SWMUs and/or AOC that have been grandfathered under 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (RRS), corrective action shall consist of the RCRA Facility Investigation (RFI) and if necessary, Interim Corrective Measures (ICM), Baseline Risk Assessment (BLRA), Corrective Measures Study (CMS) and Corrective Measures Implementation (CMI). For grandfathered SWMUs and/or AOC, the Permittee may continue to complete the corrective action requirements under 30 TAC Chapter 335, Subchapters A and S, provided the Permittee complies with the notification and schedule requirements pursuant to 30 TAC §335.8 and §350.(2)(m). If on the basis of the APA /RFI, it is determined that COC have been or are being released into the environment, the Permittee may be required to conduct necessary ICMs and/or corrective actions.

Upon executive director's review of corrective action obligations, the Permittee may be required to perform any or all of the following:

1. Conduct investigation(s);
2. Provide additional information;
3. Investigate additional SWMU(s) and/or AOC(s); and/or
4. Submit an application for a modification/amendment to a Compliance Plan to implement corrective action.

Any additional requirements must be completed within the time frame(s) specified by the executive director.

[VIII.]

- B. The Permittee shall conduct an RFI/APA for the SWMUs and/or AOC listed in Table II, in accordance with Provision I.E, and for any new SWMUs and/or AOC discovered after the issuance of this Compliance Plan in accordance with Provision I.F.

- C. Variance From Investigation

The Permittee may elect to certify that no COCs are currently or never have been present or managed in a SWMU and/or AOC referenced in Provision VIII.B in lieu of performing the investigation required in Provisions VIII.A and VIII.D, provided that confirming data is submitted for the current and past waste(s) managed in the respective unit or area. The Permittee shall submit such information and certification(s) on a unit-by-unit basis in the time frame required in Provision VIII.D for review and approval by the executive director of the TCEQ. Should the Permittee fail to demonstrate and certify that COCs are not or were not present in a particular unit, the investigation required in Provisions VIII.A and VIII.D shall be performed for the SWMU and/or AOC.

- D. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA)

Within one hundred twenty (120) days from the date of approval of the RFA Report of Provision I.E, the Permittee shall submit a schedule for completion of the RFI(s)/APA to the executive director for review and approval. The Permittee shall initiate the investigations in accordance with the approved schedule and guidance contained in the EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 and in accordance with state regulations referenced in Provision VIII.A. The results of the RFI/APA must be appropriately documented in a report and submitted to the executive director for approval within the time frame established in the approved schedule. The Report shall be considered complete when the full nature and extent of the contamination, the QA/QC procedures and the Data Quality Objectives are documented to the satisfaction of the executive director. The Permittee shall propose or conduct ICMs, as necessary, to protect human health and the environment.

- E. Remedy Selection

Upon approval of RFI Report/APA Report (APAR), if it is determined that there has been a release of COCs into the environment, which poses a potential risk to human health and the environment, then the Permittee shall propose a remedy in accordance with the 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (if applicable), the TRRP rules, or as otherwise authorized by the executive director. This may require a BLRA and/or CMS Report to be submitted for review and approval within the time frame(s) specified by the executive director. For facilities that are grandfathered under 30 TAC Chapter 335, Subchapter S, this report shall address RRS requirements, and the applicable items contained in the EPA publications referenced in Provision VIII.D or other guidance acceptable to the executive director. For projects conducted under TRRP, the risk assessment process shall be addressed in the APAR and the evaluation of corrective measures shall be conducted as part of the remedy standard selection process.

[VIII.]

F. Corrective Measures Implementation (CMI)/Remedial Action Plan (RAP)

If on the basis of the RFI and/or BLRA and/or CMS or APA, it is determined that there is a risk to the human health and environment, then the Permittee shall submit for approval a CMI Work Plan(s) or propose a response action (TRRP) within 180 days of receipt of approval of the RFI and/or BLRA/CMS Report or APAR unless otherwise extended by the executive director. The CMI Workplan shall address all of the applicable items contained in the EPA publications referenced in Provision VIII.D or other guidance acceptable to the executive director. Response actions, including TRRP Remedy Standard A or Risk Reduction Standard (RRS) No. 2, can not be self implemented as normally allowed by TRRP or RRS because under Hazardous Solid Waste Amendments (HSWA) corrective action and permit provisions requires the CMI workplan to be reviewed prior to approval and public participation (see also Provision VIII.G). For TRRP response actions, the Permittee shall submit a RAP in accordance with schedules and requirements of 30 TAC Chapter 350. The CMI Workplan or RAP shall contain detailed final proposed engineering design, monitoring plans and schedule to implement the selected remedy and assurances of financial responsibility for completing the corrective action. Upon completion of the response action, the Permittee shall submit a CMI Report or Response Action Completion Report (RACR) to the TCEQ for review and approval. The CMI Report shall address all the applicable items in the EPA publications EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 or other guidance acceptable to the executive director. The RACR shall address all the applicable items in Title 30 TAC Chapter 350 and applicable guidance.

If the response action does not propose a permanent remedy (e.g., RRS No. 3 or Remedy Standard B), or the response action requires long-term groundwater monitoring in order to demonstrate attainment of a permanent remedy (e.g., monitored natural attenuation to demonstrate Remedy Standard A), the Permittee must submit a CMI Workplan or RAP as part of a Compliance Plan application and/or modification/amendment in accordance with Provision X.D to establish corrective action and provide financial assurance (if applicable) to satisfy the requirements of 30 TAC §335.167. The Compliance Plan application and/or modification/amendment must be submitted within 180 days of approval of the CMS/BLRA or APAR. The Permittee may propose an alternative schedule to be approved by the executive director to incorporate several approved CMI Workplans or RAPs into a single Compliance Plan modification/or amendment when CMI Workplans or RAP schedules coincide. Implementation of the corrective measure(s) shall be addressed through issuance of a new or modified/amended Compliance Plan.

To report the progress of the corrective measures, the Permittee shall submit to the TCEQ CMI Progress Reports or RAER (TRRP) annually as a section of the Compliance Plan report required by Table VII of this Compliance Plan, or as otherwise directed.

If deed recordation and necessary institutional controls are required as part of the final corrective action, the Permittee shall within ninety (90) days of approval for the final corrective action submit to the executive director for review and approval the required proof of deed notice in accordance with Provision X.A.

[VIII.]

G. Public Notice

1. The Permittee shall conduct public notice when:
  - a. CMI Work Plan or RAP is submitted to the executive director in accordance with Provision VIII.F which contains the proposed final corrective measure for SWMU(s) and/or AOC(s) from which a release has occurred, and with proposed institutional control (as applicable). This process occurs through Compliance Plan renewal, or modification/ amendment; or,
  - b. If on the basis of the RFI / BLRA or APAR required by Provision VIII.D. and VIII.E, it is determined the release from SWMU(s) and/or AOC(s) meets the performance standards under RRR or TRRP such that no remedy is needed, there is no risk to the human health and environment, and the Permittee seeks approval of no further action determination by the executive director. This process occurs through corrective action process.
2. No public notice required when:
  - a. It is determined based on the results of the RFA required by Provision I.E, or RFI or APAR required by Provision VIII.D, that no release occurred from a SWMU(s) and/or AOC(s).

The purpose of the public notice is to give the members of the public the opportunity to submit written comments on the proposed corrective measure(s) or proposed no further action determination. Refer to Attachment C of this Compliance Plan for further guidance on public notice participation in HSWA corrective action.

H. Interim Corrective Measures (ICMs)

1. The ICMs apply to waste management units or AOCs under investigation for which a final Corrective Action Program has not been authorized by the Compliance Plan. ICMs also apply to units/AOCs that are discovered after issuance of this Compliance Plan.
2. The objectives of the ICMs are to remove, decontaminate, and/or stabilize the source (i.e., waste and waste residues) and contaminated media to protect human health and the environment. The Permittee shall modify the ICMs, as necessary, to achieve these objectives.
3. The Permittee is authorized to design, construct, operate and maintain ICMs for waste management units/AOCs as necessary to protect human health and the environment. The ICMs shall be operated until final corrective measures established in accordance with Provision VIII.F are authorized in the Compliance Plan. At a minimum, the ICMs shall consist of the following:

[VIII.H.3.]

- a. Specific performance goals to protect human health and the environment;
- b. A monitoring system to evaluate the ICMs and determine if the objectives outlined in Provision VIII.H.2 are being met. All ICM wells must comply with the requirements of Provision III.B and Attachment B of this Compliance Plan;
- c. An implementation schedule to initiate ICMs;
- d. Submittal of a report specifying the design of the ICMs upon installation. During implementation of the ICMs, periodic ICMs Status Reports shall be submitted in accordance with Table VII (Item 25) to document the objectives of Provision VIII.H.2 are being achieved; and
- e. A procedure to modify the design, as necessary, to achieve the objectives outlined in Provision VII.H.2 of this Compliance Plan.

IX. FINANCIAL ASSURANCE [**Reserved**]

X. GENERAL PROVISIONS

A. Deed Recordation Requirements

For waste and contaminated media approved to remain in place above background or health-based concentration levels after completion of the corrective action and/or groundwater monitoring programs, the Permittee shall record an instrument in the county deed records for the facility to specifically identify the areas of contamination exceeding background or health-based values. The deed certification shall follow the requirements of 30 TAC §335.560 and §335.569 or 30 TAC §350.111, where applicable.

B. Notification Requirements

The Permittee shall notify the local TCEQ region office at least ten (10) days prior to any well installation or groundwater monitor sampling activity required by the Compliance Plan in order to afford Region personnel the opportunity to observe these events and collect samples.

C. Distribution of Copies

The Permittee shall submit all schedules, plans, and reports required by this Compliance Plan according to the following distribution list:

1. An original and one copy to the Corrective Action Section, **Mail Code** MC-127, Remediation Division, Texas Commission on Environmental Quality in Austin, Texas; and

[X.C.]

2. One copy to the Waste Program, Texas Commission on Environmental Quality Region I Office in Amarillo, Texas.

D. Compliance Plan Modification or Amendment

Any application to modify or amend the Compliance Plan shall be accomplished in accordance with the provisions of 30 TAC Chapter 305 Subchapter D and submitted in accordance with the Compliance Plan Application's general instructions.

- E. Any changes to the Corrective Action or Groundwater Monitoring Systems are subject to executive director's approval.
- F. The Permittee shall maintain all reports, monitoring, testing, analytical, and inspection data obtained or prepared pursuant to the requirements of this Compliance Plan, including graphs and drawings, in the operating record at the facility. The operating record at the facility shall be made available for review by the staff of the TCEQ upon request.
- G. The Permittee shall submit a compliance schedule in accordance with Table VIII.

XI. FORCE MAJEURE

The Permittee's non-compliance with one or more of the provisions of this Compliance Plan may be justified only to the extent and for the duration that non-compliance is caused by a "Force Majeure" event. For purposes of this Compliance Plan, "Force Majeure" is defined as an event that is caused by an Act of God, labor strike, or work stoppage, or other circumstance beyond the Permittee's control that could not have been prevented by due diligence, and that makes substantial compliance with the applicable provision or provisions of this Compliance Plan impossible.

The occurrence of a "Force Majeure" event that justifies the missing of one deadline shall not automatically justify the missing of later deadlines unless there is a cumulative effect due to such an event. The Permittee shall keep a record of any delaying events.

If the Permittee anticipates or experiences an inability to comply with any of the provisions of this Compliance Plan due to a "Force Majeure" event, the Permittee shall notify the executive director of the TCEQ within 24 hours or at the earliest possible time thereafter contingent on the circumstances. A written notice must be submitted to the TCEQ within ten (10) days, which describes the nature, cause, and anticipated length of the delay and all steps which the Permittee has taken and will take, with a schedule for their implementation, to avoid or minimize the delay. In the event that performance of any of the activities required by this Compliance Plan is affected by a "Force Majeure" event, then the Permittee shall propose a plan for approval by the executive director of the TCEQ, for achieving the objectives of the Compliance Plan by alternative means in the most timely manner.

**CP TABLE I**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
A.	Corrective Action <sup>1</sup> 30 TAC 335.166 [Reserved]		NA				
B.	Compliance Monitoring <sup>1</sup> 30 TAC 335.165 [Reserved]		NA				
C.	Corrective Action <sup>2</sup> 30 TAC 335.167	1	AOC 11	Fire Training Area Burn Pits	3	-	
		2	AOC 3b	Zone 11 Former Boiler House Areas	3	-	
		3	SVS 6	Unnumbered Zone 7 Landfills	3	-	
		4	SVS 7a&b	Magazine Demolition Debris Landfills (Zones 4 & 5)	3	-	
		5	SWMU 10	Pantex Lake	3	-	
		6	SWMU 136	Subsurface Leaching Bed (Bldg 12-59)	3	-	
		7	SWMU 4	Drainage Ditch (Bldg 11-50)	3	-	
		8	SWMU 5-12b	Perimeter Drainage Ditch from Zone 12 to SWMU 5-15	3	-	
		9	SWMU 5-15 a&b	Drainage Ditch to Playa 4	3	-	
		10	SWMU 58	Landfill 7	3	-	
		11	SWMU 64	Landfill 13	3	-	
		12	SWMU 66	Landfill 15	3	-	
		13	SWMU 7	Playa 2	3	012	
		14	SWMU 9	Playa 4	3	-	
		15	Unassigned	Former 11-15 Pond	3	-	
		16	AOC 8a	Pad 11-12 Solvent Leaks	3	-	
		17	AOC 8b	Pad 11-13 Solvent Leaks	3	-	
		18	SVS 2	Parallel Depressions Bldg 11-26	3	-	
		19	SVS 5	Landfill East of Pad 11-13	3	-	
		20	SWMU 147	Bldg 11-13 TNT Settling Pit	3	-	

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	21	SWMU 149	Bldg 11-26 TNT Settling Pit	3	-	
		22	SWMU 150	Bldg 11-12 TNT Settling Pit	3	-	
		23	SWMU 60	Landfill 9	3	-	
		24	SWMU 61	Landfill 10	3	-	
		25	AOC 1	Transformer Leak (Bldg 11-14A)	3	-	
		26	AOC 8c	Bldg 11-17 Solvent Leaks	3	-	
		27	SWMU 117	High Explosives Settling Tank	3	010	
		28	SWMU 118	Equalization Basin	3	016	
		29	SWMU 119a	High Explosives Filters	3	010	
		30	SWMU 12	Drainage Ditch Near Former 11-14 Pond	3	013	
		31	SWMU 120a	Carbon Filters	3	010	
		32	SWMU 148	Bldg 11-17 TNT Settling Pits	3	-	
		33	SWMU 3	Drainage Ditch (Bldg 11-44)	3	-	
		34	SWMU 86	11-14 Solvent Storage Shed	3	-	
		35	AOC 7a	Bldg 11-36 Sulfuric Acid Spills	3	-	
		36	AOC 8d	Pad 11-22 Solvent Leaks	3	-	
		37	AOC 8e	Bldg 11-36 Solvent Leaks	3	089	
		38	SWMU 113	Overflows from Bldg 11-36 Collection System/Sump	3	-	
		39	SWMU 5-08	Drainage Ditch (Bldg 11-36)	3	-	
		40	Unassigned	Former Leaching Bed North of Bldg 11-50 and West of Bldg 11-36	3	-	
		41	SWMU 13	Former Solar Evaporation Pond (Bldg 11-51)	3	-	
		42	SWMU 5-09a	Drainage Ditch (Bldg 11-17)	3		
		43	SWMU 5-09b	Drainage Ditch (Bldg 11-20)	3	-	
		44	SWMU 5-11	Zone 11 Main Perimeter Ditch	3	-	
		45	SWMU 87	Bldg 11-20 Solvent Storage Shed	3	-	

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>	
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	46	Unassigned SWMU	Evaporation Pit South of Bay 11/West of Bay 6 (Bldg 11-20)	3	-	
		47	Unassigned SWMU	Evaporation Pit East of Bay 3 (Bldg 11-20)	3	-	
		48	AOC 7c	Bldg 12-64 Sulfuric Acid Spills	3	-	
		49	SWMU 103	Former Battery Storage Area, (Bldg 12-81)	3	-	
		50	SWMU 135	Leaching Bed (Bldg 12-44E)	3	-	
		51	SWMU 5-06a	Drainage Ditch (Bldg 12-44E)	3	-	
		52	SWMU 5-06b	Drainage Ditch (Bldg 12-81)	3	-	
		53	SWMU 56	Landfill 5	3	-	
		54	SWMU 57	Landfill 6	3	-	
		55	SWMU 68a	Original Landfill	3	-	
		56	AOC 10a	Bldg 12-43A Pesticide Rinse Area	3	-	
		57	AOC 13a	Former Cooling Tower in Zone 12 (Pad)	3	-	
		58	AOC 13b	Former Cooling Tower in Zone 12 (Piping/Soil)	3	-	
		59	SWMU 1	Drainage Ditch (Bldg 12-17)	3	-	
		60	SWMU 119b	High Explosives Filters	3	009	
		61	SWMU 120b	Carbon Filters	3	009	
		62	SWMU 121	High Explosives Settling Tank	3	009	
		63	SWMU 122a	Equalization Basin	3	015	
		64	SWMU 122b	Bldg 12-24N & Bldg 12-43 Upland Soil	3	-	
		65	SWMU 123	Concrete Sump & Waste water Treatment Unit	3	-	
66	SWMU 2	Drainage Ditch (Bldg 12-43)	3	-			
67	SWMU 5-04a	Bldg 12-19 Drainage Ditches	3	-			
68	SWMU 5-04b	Bldg 12-73 Drainage Ditches	3	-			

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	69	SWMU 5-05	Drainage Ditch (Bldgs 12-21 & 12-24)	3	-	
		70	SWMU 5-07	Bldg 12-41 Drainage Ditch	3	-	
		71	SWMU 5-12a	Zone 12 Main Perimeter Ditch	3	-	
		72	SWMU 54	Landfill 3	3	-	
		73	SWMU 55	Landfill 4	3	-	
		74	AOC 10b	Bldg 12-51 Pesticide Rinse Area	3	-	
		75	AOC 12	Paint Shop/ Solvent Pit (Bldg 12-5D)	3	-	
		77	SWMU 5-02a	Drainage Ditch (Bldg 12-51)	3	-	
		78	SWMU 5-02b	Drainage Ditch (Bldg 12-67)	3	-	
		79	SWMU 5-02c	Drainage Ditch (Bldg 12-110)	3	-	
		80	Unassigned SWMU	SWMU Capacitor Bank Rupture	3	-	
		81	AOC 15	DDT Release (Bldg 12-35)	3	-	
		82	SWMU 5-01a	Drainage Ditch(es) (Bldg 12-5)	3	-	
		83	SWMU 5-01b	Drainage Ditch(es) (Bldg 12-5B)	3	-	
		84	Unassigned	Concrete Sump (near Bldg 12-5B)	3	-	
		85	SWMU 5-13a,b,c	Drainage Ditches to Playa 1	3	-	
		86	SWMU 6	Playa 1	3	001	
		87	SWMU 68b	Landfill 1	3	-	
		88	SWMU 68c	Landfill 2	3	-	
		89	SWMU 82	Nuclear Weapon Accident Residue Storage	3	-	
90	AOC 14	Battery Storage Area (Bldg 12-18)	3	-			

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	91	AOC 3a	Former Boiler House Areas	3	-	
		92	SVS 3 (SWMU 67)	Carbon Black Burial Area near Bldg 10-7	3	-	
		93	SVS 8	Abandoned Zone 10 Landfill	3	-	
		94	SWMU 143a	Former Waste Drum Storage Areas (Bldg 10-9)	3	-	
		95	SWMU 143b	Former Waste Drum Storage Areas (Bldg 10-7)	3	-	
		96	SWMU 144	Zone 10 TNT Settling Pit (Bldg 10-13)	3	-	
		97	SWMU 145	Zone 10 TNT Settling Pit (Bldg 10-17)	3	-	
		98	SWMU 146	Zone 10 TNT Settling Pit (Bldg 10-26)	3	-	
		99	SWMU 68d	Sanitary Landfill	3	002	
		100	SWMU 84	Scrap, Salvage, and Storage Yard (Bldg 10-9)	3	-	
		101	Unassigned AOC	Zone 10 Landfills West and Southwest of SWMU 84 Scrap and Salvage Yard	3	-	
		102	Unassigned SWMU	Zone 10 Berms	3	-	
		103	SWMU 14	Explosive Burn Pad 1	3	004	
		104	SWMU 15	Explosive Burn Pad 2	3	004	
		105	SWMU 16	Explosive Burn Pad 3	3	004	
		106	SWMU 17	Explosive Burn Pad 4	3	004	
		107	SWMU 18	Explosive Burn Pad 5	3	004	

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	108	SWMU 19	Explosive Burn Pad 6	3	004	
		109	SWMU 20	Explosive Burn Pad 7	3	004	
		110	SWMU 21	Explosive Burn Pad 7A	3	004	
		111	SWMU 22	Explosive Burn Pad 8	3	004	
		112	SWMU 23	Explosive Burn Pad 9	3	004	
		113	SWMU 24	Explosive Burn Pad 10	3	004	
		114	SWMU 25	Explosive Burn Pad 11 (Including Wash Rack)	3	004	
		115	SWMU 26	Explosive Burn Pad 12	3	004	
		116	SWMU 27	Explosive Burn Pad 13	3	004	
		117	SWMU 37	Burning Ground Landfill 1	3	006	
		118	SWMU 38	Burning Ground Landfill 2	3	006	
		119	SWMU 39	Burning Ground Landfill 3	3	006	
		120	SWMU 40	Burning Ground Landfill 4	3	006	
		121	SWMU 41	Burning Ground Landfill 5	3	006	
		122	SWMU 42	Burning Ground Landfill 6	3	006	
		123	SWMU 43	Burning Ground Landfill 7	3	006	
		124	SWMU 44	Burning Ground Landfill 8	3	006	
		125	SWMU 45	Explosive Burn Cage	3	039	3/4/1997
		126	SWMU 46	Explosive Burn Cage	3	039	3/4/1997
127	SWMU 47	Chemical Burn / Evaporation Pits	3	-			

**CP TABLE I, Continued**  
**Waste Management Units and Areas Subject to Groundwater**  
**Corrective Action and Compliance Monitoring [Reserved]**

Item	Applicable Program		Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
C.	Corrective Action <sup>2</sup> 30 TAC 335.167 (continued)	128	SWMU 48	Burning Ground Solvent Evap. Pans	3	-	
		129	SWMU 49	Burning Ground Solvent Evap. Pans	3	-	
		130	SWMU 50	Burning Ground Solvent Evap. Pans	3	-	
		131	SWMU 51	Burning Ground Solvent Evap. Pans	3	-	
		132	SWMU 52	Burn Racks and Flashing Pits	3	004, 052, 053, 054	
		133	SWMU 8	Playa 3	3	019	
		134	Unassigned	Demonstration Facilities	3	-	
D.	Alternative Corrective Action <sup>3</sup> 30 TAC 335.151 [Reserved]		NA				

**Foot Note:**

1. Program applies to RCRA-regulated units only.
2. Program applies to releases from solid waste management units (SWMUs) and/or areas of concern (AOCs).
3. Program applies to commingled releases from RCRA-regulated unit and from one or more SWMUs and/or AOCs.
4. Date of Commission approval letter for program requirement and remedy standard completed.

**CP TABLE II**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
1	NA	AOC 11	Fire Training Area Burn Pits	3	-	
2	NA	AOC 2	Main Electrical Substation (4-28)	1	-	9 /22/1993
3	NA	AOC 3b	Zone 11 Former Boiler House Areas	3	-	
4	NA	AOC 4	Asbestos Installation (Plant-wide)	Admin Closure	-	6 /27/2003
5	NA	AOC 6b	Gasoline Leak at Bldg 16-1	1	-	8 /24/1999
6	NA	AOC 7b	Bldg 12-4 Sulfuric Acid Spill	2	-	6 /3 /2005
7	NA	AOC 9	Site-Wide, Underground Storage Tanks	Admin Closure	-	6 /27/2003
8	NA	Permitted Unit 53	Igloo 4-72 Storage	Active	-	
9	NA	Permitted Unit 1	Container Storage 11-7N Pad	2	-	3 /28/2005
10	NA	Permitted Unit 10	Container Storage Area (Conex WM7)	1	-	9/5/2000
11	NA	Permitted Unit 11	Container Storage Area (Conex WM8)	1	-	9 /5 /2000
12	NA	Permitted Unit 36	Bldgs 11-9 Tank	1	-	2 /23/1999
13	NA	Permitted Unit 37	Bldg 11-9 Tank	1	-	2 /23/1999
14	NA	Permitted Unit 38	Bldg 11-15a Tank	1	-	2 /23/1999
15	NA	Permitted Unit 39	Bldg 11-15a Tank	1	-	2 /23/1999
16	NA	Permitted Unit 40	Bldg 11-9 Container Storage Area	1	-	4 /22/1998
17	NA	Permitted Unit 46	Container Storage Area (Conex WM1-A)	1	-	4 /22/1998
18	NA	Permitted Unit 47	Container Storage Area (Conex WM1-B)	1	-	4 /22/1998
19	NA	Permitted Unit 48	Container Storage Area (Conex WM3-A)	1	-	4 /22/1998
20	NA	Permitted Unit 49	Container Storage Area (Conex WM5-A)	1	-	4 /22/1998
21	NA	Permitted Unit 50	Container Storage Area (Conex WM5-B)	1	-	4 /22/1998

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
22	NA	Permitted Unit 52	Igloo 4-46 Storage	1	-	4 /22/1998
23	NA	Permitted Unit 54	Igloo 4-74 Storage	1	-	4 /22/1998
24	NA	Permitted Unit 8	Container Storage Area (Conex WM5)	1	-	9 /5 /2000
25	NA	Permitted Unit 9	Container Storage Area (Conex WM6)	1	-	9 /1 /2000
26	NA	SVS 4	Old Pistol Range	Active	-	
27	NA	SVS 6	Unnumbered Zone 7 Landfills	3	-	
28	NA	SVS 7a&b	Magazine Demolition Debris Landfills (Zones 4 & 5)	3	-	
29	NA	SWMU 10	Pantex Lake	3	-	
30	NA	SWMU 101	Waste Accumulation Area, Bldg 12-59	Admin Closure	-	6 /27/2003
31	NA	SWMU 106	Waste Accumulation Site at Bldg 16-1	2	-	12/22/2005
32	NA	SWMU 107	Bldg 16-5, Flammable Liquid Storage	Admin Closure	-	6 /27/2003
33	NA	SWMU 11	Surface Impoundment in Zone 5 (Bldg FS-16)	2	-	12/22/2005
34	NA	SWMU 124	Bldg 11-50 Waste Water Treatment System	Admin Closure	-	9/19/2001
35	NA	SWMU 127	Miscellaneous Non-hazardous Waste Dumpsters	Admin Closure	-	9 /19/2001
36	NA	SWMU 128	Portable HE Waste water Tanks	Admin Closure	-	9 /19/2001
37	NA	SWMU 132	Vacuum Guzzlers	Admin Closure	-	9 /19/2001
38	NA	SWMU 133	UST #30, Waste Oil Tank at Bldg 16-1	1	-	8 /18/1999
39	NA	SWMU 134	Bldg 11-29 Silver Recovery	Admin Closure	-	9 /19/2001
40	NA	SWMU 136	Subsurface Leaching Bed (Bldg 12-59)	3	-	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
41	NA	SWMU 139	Photo Processing Leaching Bed (Bldg FS-10)	2	-	12/22/2005
42	NA	SWMU 140	Old Sewage Treatment Plant/Sludge Beds	2	-	12/22/2005
43	NA	SWMU 142	Miscellaneous Hood and Filter Systems, 24 Bldgs	Admin Closure	-	9 /19/2001
44	NA	SWMU 4	Drainage Ditch (Bldg 11-50)	3	-	
45	NA	SWMU 5-10	Drainage Ditches near the Old Sewage Treatment Plant	2	-	12/22/2005
46	NA	SWMU 5-12b	Perimeter Drainage Ditch from Zone 12 to SWMU 5-15	3	-	
47	NA	SWMU 5-14	Drainage Ditch from Zone 11 to Playa 2	2	-	12/22/2005
48	NA	SWMU 5-15 a&b	Drainage Ditch to Playa 4	3	-	
49	NA	SWMU 53	Temporary High Explosives Burning Ground	2	-	12/22/2005
50	NA	SWMU 58	Landfill 7	3	-	
51	NA	SWMU 62	Landfill 11	Admin Closure	-	7 /29/2004
52	NA	SWMU 63	Landfill 12	2	-	12/22/2005
53	NA	SWMU 64	Landfill 13	3	-	
54	NA	SWMU 65	Landfill 14 (Duplicate of SVS 6)	Admin Closure	-	6 /27/2003
55	NA	SWMU 66	Landfill 15	3	-	
56	NA	SWMU 69	Firing Site 4	Active	-	
57	NA	SWMU 7	Playa 2	3	012	
58	NA	SWMU 70	Firing Site 5	2	-	8 /4 /1999
59	NA	SWMU 71	Firing Site 6	2	-	11/1 /2000

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
60	NA	SWMU 72	Firing Site 10	Active	-	
61	NA	SWMU 73	Firing Site 15	2	-	11/1 /2000
62	NA	SWMU 74	Firing Site 21	Active	-	
63	NA	SWMU 75	Firing Site 22	Active	-	
64	NA	SWMU 76	Firing Site 18	Admin Closure	-	9 /19/2001
65	NA	SWMU 77	Firing Site 23, Filter/Exhaust System	Admin Closure	-	
66	NA	SWMU 78	Firing Site 24, Concrete Sump	Active	-	
67	NA	SWMU 79a	11-7A (Unit 41) Container	1	003, 037, 038	3/25/2005
68	NA	SWMU 79b	11-7B Pad (Unit 42) Container	1	003, 037, 038	3 /25/2005
69	NA	SWMU 81	Mixed Waste Storage, Magazine 4-19	1	-	10/29/1993
70	NA	SWMU 83	Bldg 4-8, Container Storage Bldg, Asbestos Staging Area	Admin Closure	-	9 /19/2001
71	NA	SWMU 9	Playa 4	3	-	
72	NA	SWMU 98	Bldg 12-38 Solvent Storage	Admin Closure	-	6 /27/2003
73	NA	Unassigned	Unlined Landfill/Landfill 18 North of Firing Site 10	Admin Closure	-	7 /29/2004
74	NA	Unassigned	Dumpster Area near FS-11	2	-	12/22/2005
75	NA	Unassigned	Former 11-15 Pond	3	-	
76	NA	Unassigned AOC	Bldg 12-1 Laundry Sump	2	-	6 /3 /2005
77	NA	Unassigned SWMU	FS-22 Container Gun Barrel	2	-	8 /3 /1999
78	WMG 1	AOC 8a	Pad 11-12 Solvent Leaks	3	-	
79	WMG 1	AOC 8b	Pad 11-13 Solvent Leaks	3	-	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
80	WMG 1	SVS 2	Parallel Depressions Bldg 11-26	3	-	
81	WMG 1	SVS 5	Landfill East of Pad 11-13	3	-	
82	WMG 1	SWMU 147	Bldg 11-13 TNT Settling Pit	3	-	
83	WMG 1	SWMU 149	Bldg 11-26 TNT Settling Pit	3	-	
84	WMG 1	SWMU 150	Bldg 11-12 TNT Settling Pit	3	-	
85	WMG 1	SWMU 59	Landfill East of Pad 11-13 (Duplicate of SVS 5)	Admin Closure	-	6 /27/2003
86	WMG 1	SWMU 60	Landfill 9	3	-	
87	WMG 1	SWMU 61	Landfill 10	3	-	
88	WMG 2	AOC 1	Transformer Leak (Bldg 11-14A)	3	-	
89	WMG 2	AOC 8c	Bldg 11-17 Solvent Leaks	3	-	
90	WMG 2	SWMU 117	High Explosives Settling Tank (Bldg 11-44)	3	010	3/18/1994
91	WMG 2	SWMU 118	Equalization Basin (Bldg 11-44)	3	016	8/26/2002
92	WMG 2	SWMU 119a	High Explosives Filters (Bldg 11-44)	3	010	3/18/1994
93	WMG 2	SWMU 12	Drainage Ditch Near Former 11-14 Pond	3	013	
94	WMG 2	SWMU 120a	Carbon Filters (Bldg 11-44)	3	010	3/18/1994
95	WMG 2	SWMU 129a	HE Contaminated Sludge Containers, Bldg 11-44	Admin Closure	-	9 /19/2001
96	WMG 2	SWMU 148	Bldg 11-17 TNT Settling Pits	3	-	
97	WMG 2	SWMU 3	Drainage Ditch (Bldg 11-44)	3	-	
98	WMG 2	SWMU 86	11-14 Solvent Storage Shed	3	-	
99	WMG 2	Unassigned SWMU	11-14 Hypalon Pond and Waste water Line	2	-	2 /21/1995

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
100	WMG 3	AOC 7a	Bldg 11-36 Sulfuric Acid Spills	3	-	
101	WMG 3	AOC 8d	Pad 11-22 Solvent Leaks	3	-	
102	WMG 3	AOC 8e	Bldg 11-36 Solvent Leaks	3	089	
103	WMG 3	SWMU 111	Bldg 11-36 Solvent Tanks	Admin Closure	-	9 /19/2001
104	WMG 3	SWMU 112	Bldg 11-36 Solvent Tanks	Admin Closure	-	9 /19/2001
105	WMG 3	SWMU 113	Overflows from Bldg 11-36 Collection System/Sump	3	-	
106	WMG 3	SWMU 114	Bldg 11-36 Scrubber System	Admin Closure	-	9 /19/2001
107	WMG 3	SWMU 115	Bldg 11-36 Carbon Filter	Admin Closure	-	9 /19/2001
108	WMG 3	SWMU 116	Bldg 11-36 Sludge Filters	Admin Closure	-	9 /19/2001
109	WMG 3	SWMU 130	Portable Waste Solvent Tanks, Building 11-36	1	-	5 /3 /1999
110	WMG 3	SWMU 5-08	Drainage Ditch (Bldg 11-36)	3	-	
111	WMG 3	Unassigned	Former Leaching Bed North of Bldg 11-50 and West of Bldg 11-36	3	-	
112	WMG 4	SWMU 13	Former Solar Evaporation Pond (Bldg 11-51)	3	-	
113	WMG 4	SWMU 5-09a	Drainage Ditch (Bldg 11-17)	3	-	
114	WMG 4	SWMU 5-09b	Drainage Ditch (Bldg 11-20)	3	-	
115	WMG 4	SWMU 5-11	Zone 11 Main Perimeter Ditch	3	-	
116	WMG 4	SWMU 87	Bldg 11-20 Solvent Storage Shed	3	-	
117	WMG 4	SWMU 88	11-41 Compressor Bldg Waste Accumulation	Admin Closure	-	6 /27/2003
118	WMG 4	Unassigned SWMU	Evaporation Pit South of Bay 11/West of Bay 6 (Bldg 11-20)	3	-	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
119	WMG 4	Unassigned SWMU	Evaporation Pit East of Bay 3 (Bldg 11-20)	3	-	
120	WMG 5	AOC 7c	Bldg 12-64 Sulfuric Acid Spills	3	-	
121	WMG 5	SWMU 100	Waste Accumulation Area, (Bldg 12-42)	Admin Closure	-	6 /27/2003
122	WMG 5	SWMU 103	Former Battery Storage Area, (Bldg 12-81)	3	-	
123	WMG 5	SWMU 104	Waste Accumulation Area, (Bldg 12-82)	Admin Closure	-	6 /27/2003
124	WMG 5	SWMU 105	Waste Accumulation Area, (Bldg 12-84)	Admin Closure	-	6 /27/2003
125	WMG 5	SWMU 135	Leaching Bed (Bldg 12-44E)	3	-	
126	WMG 5	SWMU 5-06a	Drainage Ditch (Bldg 12-44E)	3	-	
127	WMG 5	SWMU 5-06b	Drainage Ditch (Bldg 12-81)	3	-	
128	WMG 5	SWMU 56	Landfill 5	3	-	
129	WMG 5	SWMU 57	Landfill 6	3	-	
130	WMG 5	SWMU 68a	Original Landfill	3	-	
131	WMG 5	Unassigned	UST #39 North of Bldg 12-84A	1	-	8 /18/1999
132	WMG 5	Unassigned	UST #38 Bldg 12-98	1	-	8 /18/1999
133	WMG 6/7	Unassigned	UST #9 Bldg 12-17E	1	-	8 /18/1999
134	WMG 6/7	AOC 10a	Bldg 12-43A Pesticide Rinse Area	3	-	
135	WMG 6/7	AOC 13a	Former Cooling Tower in Zone 12 (Pad)	3	-	
136	WMG 6/7	AOC 13b	Former Cooling Tower in Zone 12 (Piping/Soil)	3	-	
137	WMG 6/7	SWMU 1	Drainage Ditch (Bldg 12-17)	3	-	
138	WMG 6/7	SWMU 119b	High Explosives Filters (Bldg 12-43)	3	009	3/18/994
139	WMG 6/7	SWMU 120b	Carbon Filters (Bldg 12-43)	3	009	3/18/994

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
140	WMG 6/7	SWMU 121	High Explosives Settling Tank (Bldg 12-43)	3	009	3/18/994
141	WMG 6/7	SWMU 122a	Equalization Basin (Bldg 12-43)	3	015	8/26/2002
142	WMG 6/7	SWMU 122b	Bldg 12-24N & Bldg 12-43 Upland Soil	3	-	
143	WMG 6/7	SWMU 123	Concrete Sump (Bldg 12-43)	3	-	
144	WMG 6/7	SWMU 125	Bldg 12-43 HE Contaminated Charcoal Boxes	Admin Closure	-	9 /19/2001
145	WMG 6/7	SWMU 126	Miscellaneous HE Contaminated Waste Dumpsters	Admin Closure	-	9 /19/2001
146	WMG 6/7	SWMU 129b	HE Contaminated Sludge Containers Bldg 12-43	Admin Closure	-	9 /19/2001
147	WMG 6/7	SWMU 137	Bldg 12-41, Paint Shop Waste water Tank	Admin Closure	-	6 /27/2003
148	WMG 6/7	SWMU 2	Drainage Ditch (Bldg 12-43)	3	-	
149	WMG 6/7	SWMU 5-04a	Bldg 12-19 Drainage Ditches	3	-	
150	WMG 6/7	SWMU 5-04b	Bldg 12-73 Drainage Ditches	3	-	
151	WMG 6/7	SWMU 5-05	Drainage Ditch (Bldgs 12-21 & 12-24)	3	-	
152	WMG 6/7	SWMU 5-07	Bldg 12-41 Drainage Ditch	3	-	
153	WMG 6/7	SWMU 5-12a	Zone 12 Main Perimeter Ditch	3	-	
154	WMG 6/7	SWMU 54	Landfill 3	3	-	
155	WMG 6/7	SWMU 55	Landfill 4	3	-	
156	WMG 6/7	SWMU 96	Waste Accumulation Area, Bldg 12-21	Admin Closure	-	6 /27/2003
157	WMG 6/7	SWMU 97	Waste Accumulation Area, Bldg 12-34	2	-	5 /3 /1999
158	WMG 6/7	SWMU 99	Waste Accumulation Area, Bldg 12-41	Admin Closure	-	6 /27/2003

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
159	WMG 8	SWMU 102	Bldg 12-68 Batch Master, Northeast Corner	Admin Closure	-	6 /27/2003
160	WMG 8	SWMU 108	Bldg 12-68 Batch Master	1	-	5 /29/1997
161	WMG 8	SWMU 109	Concrete Sump (Bldg 12-68)	2	-	6 /3 /2005
162	WMG 8	SWMU 110	Bldg 12-68 Electroplating Waste Retention Basin (Moat)	2	-	6 /3 /2005
163	WMG 8	SWMU 141	Classified Waste Incinerator	Admin Closure	-	9 /19/2001
164	WMG 8	SWMU 5-03a	Drainage Ditches (Bldg12-68)	2	-	6 /3 /2005
165	WMG 8	SWMU 5-03b	Drainage Ditches (Bldg 12-18)	2	-	6 /3 /2005
166	WMG 8	SWMU 5-03c	Drainage Ditches (Bldg 12-9)	2	-	6 /3 /2005
167	WMG 8	SWMU 5-03d	Drainage Ditch (Bldg 12-10)	2	-	6 /3 /2005
168	WMG 8	SWMU 85	MOCA Waste Accumulation Area, Bldg 12-16	Admin Closure	-	9 /19/2001
169	WMG 8	SWMU 90	Waste Accumulation Area, Bldg 12-9	Admin Closure	-	6 /27/2003
170	WMG 8	SWMU 91	Waste Accumulation Area, Bldg 12-9 Solvent Storage Shed	Admin Closure	-	6 /27/2003
171	WMG 8	SWMU 92	Waste Accumulation Area, Bldg 12-9 (outside)	Admin Closure	-	6 /27/2003
172	WMG 8	SWMU 94	Waste Accumulation Area, Bldg 12-R-13 (outside)	Admin Closure	-	6 /27/2003
173	WMG 8	SWMU 95	Waste Accumulation Area, Bldg 12-18 (outside)	Admin Closure	-	6 /27/2003
174	WMG 9	AOC 10b	Bldg 12-51 Pesticide Rinse Area	3	-	
175	WMG 9	AOC 12	Paint Shop/ Solvent Pit (Bldg 12-5D)	3	-	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
176	WMG 9	AOC 5	Electrical Equipment Bone Yard Near Bldg 12-5	3	-	
177	WMG 9	SWMU 138	Zone 12 Paint Shop Sandblaster Collection Cone	Admin Closure	-	9 /19/2001
178	WMG 9	SWMU 5-02a	Drainage Ditch (Bldg 12-51)	3	-	
179	WMG 9	SWMU 5-02b	Drainage Ditch (Bldg 12-67)	3	-	
180	WMG 9	SWMU 5-02c	Drainage Ditch (Bldg 12-110)	3	-	
181	WMG 9	SWMU 93	Waste Accumulation Area, Bldg 12-111 Paint Shop	Admin Closure	-	6 /27/2003
182	WMG 9	Unassigned SWMU	SWMU Capacitor Bank Rupture	3	-	
183	WMG 10	AOC 15	DDT Release (Bldg 12-35)	3	-	
184	WMG 10	AOC 6a	Gasoline Leaks at Bldgs 12-35	1	-	8 /24/1999
185	WMG 10	SWMU 131	Portable Waste Oil Storage Tanks (Bldg 12-35)	Admin Closure	-	9 /19/2001
186	WMG 10	SWMU 5-01a	Drainage Ditch(es) (Bldg 12-5)	3	-	
187	WMG 10	SWMU 5-01b	Drainage Ditch(es) (Bldg 12-5B)	3	-	
188	WMG 10	SWMU 89	Waste Accumulation Area, Bldg 12-2 North Hall	Admin Closure	-	6 /27/2003
189	WMG 10	Unassigned	UST #7 Bldg 12-5B	1	-	8 /18/1999
190	WMG 10	Unassigned	Concrete Sump (near Bldg 12-5B)	3	-	
191	WMG 11	SVS 1	Denuded Area near Playa 1	2	-	12/22/2005
192	WMG 11	SWMU 5-13a,b,c	Drainage Ditches to Playa 1	3	-	
193	WMG 11	SWMU 6	Playa 1	3	001	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
194	WMG 11	SWMU 68b	Landfill 1	3	-	
195	WMG 11	SWMU 68c	Landfill 2	3	-	
196	WMG 11	SWMU 80	Container Storage Area Conex 3 (Permitted Unit 6) in Zone 4	1	-	9 /5 /2000
197	WMG 11	SWMU 80	Container Storage Area Conex 1 (Permitted Unit 4) in Zone 4	1	-	9 /1 /2000
198	WMG 11	SWMU 80	Container Storage Area Conex 2 (Permitted Unit 5) in Zone 4	1	-	9 /1 /2000
199	WMG 11	SWMU 80	Container Storage Area Conex 4 (Permitted Unit 7) in Zone 4	1	-	9 /5 /2000
200	WMG 11	SWMU 82	Nuclear Weapon Accident Residue Storage	3	-	
201	WMG 12	AOC 14	Battery Storage Area (Bldg 12-18)	3	-	
202	WMG 12	AOC 3a	Former Boiler House Areas	3	-	
203	WMG 12	SVS 3 (SWMU 67)	Carbon Black Burial Area near Bldg 10-7	3	-	
204	WMG 12	SVS 8	Abandoned Zone 10 Landfill	3	-	
205	WMG 12	SWMU 143a	Former Waste Drum Storage Areas (Bldg 10-9)	3	-	
206	WMG 12	SWMU 143b	Former Waste Drum Storage Areas (Bldg 10-7)	3	-	
207	WMG 12	SWMU 144	Zone 10 TNT Settling Pit (Bldg 10-13)	3	-	
208	WMG 12	SWMU 145	Zone 10 TNT Settling Pit (Bldg 10-17)	3	-	
209	WMG 12	SWMU 146	Zone 10 TNT Settling Pit (Bldg 10-26)	3	-	
210	WMG 12	SWMU 68d	Sanitary Landfill	3	002	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
211	WMG 12	SWMU 84	Scrap, Salvage, and Storage Yard (Bldg 10-9)	3	-	
212	WMG 12	Unassigned AOC	Zone 10 Landfills West and Southwest of SWMU 84 Scrap and Salvage Yard	3	-	
213	WMG 12	Unassigned SWMU	Zone 10 Berms	3	-	
214	WMG 13	SWMU 14	Explosive Burn Pad 1	3	004	
215	WMG 13	SWMU 15	Explosive Burn Pad 2	3	004	
216	WMG 13	SWMU 16	Explosive Burn Pad 3	3	004	
217	WMG 13	SWMU 17	Explosive Burn Pad 4	3	004	
218	WMG 13	SWMU 18	Explosive Burn Pad 5	3	004	
219	WMG 13	SWMU 19	Explosive Burn Pad 6	3	004	
220	WMG 13	SWMU 20	Explosive Burn Pad 7	3	004	
221	WMG 13	SWMU 21	Explosive Burn Pad 7A	3	004	
222	WMG 13	SWMU 22	Explosive Burn Pad 8	3	004	
223	WMG 13	SWMU 23	Explosive Burn Pad 9	3	004	
224	WMG 13	SWMU 24	Explosive Burn Pad 10	3	004	
225	WMG 13	SWMU 25	Explosive Burn Pad 11 (Including Wash Rack)	3	004	
226	WMG 13	SWMU 26	Explosive Burn Pad 12	3	004	
227	WMG 13	SWMU 27	Explosive Burn Pad 13	3	004	
228	WMG 13	SWMU 28	Active Burn Tray <sup>1</sup>	Active		
229	WMG 13	SWMU 29	Active Burn Tray <sup>1</sup>	Active		

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	WMG	Unit #	Unit Name	RRS Closure	Notice of Registration Number	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
230	WMG 13	SWMU 30	Active Burn Tray <sup>1</sup>	Active		
231	WMG 13	SWMU 31	Active Burn Tray <sup>1</sup>	Active		
232	WMG 13	SWMU 32	Active Burn Tray <sup>1</sup>	Active		
233	WMG 13	SWMU 33	Active Burn Tray <sup>1</sup>	Active		
234	WMG 13	SWMU 34	Active Burn Pan <sup>1</sup>	Active		
235	WMG 13	SWMU 35	Active Burn Tray <sup>1</sup>	Active		
236	WMG 13	SWMU 36	Active Burn Tray <sup>1</sup>	Active		
237	WMG 13	SWMU 37	Burning Ground Landfill 1	3	006	
238	WMG 13	SWMU 38	Burning Ground Landfill 2	3	006	
239	WMG 13	SWMU 39	Burning Ground Landfill 3	3	006	
240	WMG 13	SWMU 40	Burning Ground Landfill 4	3	006	
241	WMG 13	SWMU 41	Burning Ground Landfill 5	3	006	
242	WMG 13	SWMU 42	Burning Ground Landfill 6	3	006	
243	WMG 13	SWMU 43	Burning Ground Landfill 7	3	006	
244	WMG 13	SWMU 44	Burning Ground Landfill 8	3	006	
245	WMG 13	SWMU 45	Explosive Burn Cage	3	039	3/4/1997
246	WMG 13	SWMU 46	Explosive Burn Cage	3	039	3/4/1997
247	WMG 13	SWMU 47	Chemical Burn / Evaporation Pits	3	-	
248	WMG 13	SWMU 48	Burning Ground Solvent Evap. Pans	3	-	
249	WMG 13	SWMU 49	Burning Ground Solvent Evap. Pans	3	-	
250	WMG 13	SWMU 50	Burning Ground Solvent Evap. Pans	3	-	

**CP TABLE II, Continued**  
**Solid Waste Management Units and/or Areas of Concern**  
**Addressed in Provision VIII**

	<b>WMG</b>	<b>Unit #</b>	<b>Unit Name</b>	<b>RRS Closure</b>	<b>Notice of Registration Number</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
251	WMG 13	SWMU 51	Burning Ground Solvent Evap. Pans	3	-	
252	WMG 13	SWMU 52	Burn Racks and Flashing Pits	3	004, 052, 053, 054	3/4/1997
253	WMG 13	SWMU 8	Playa 3	3	019	
254	WMG 13	Unassigned	Demonstration Facilities	3	-	

**AOC** – Area of Concern

**RRS** – Risk Reduction Standard from 30 TAC 335 Subchapter S

**SVS** – Supplemental Verification Site

**SWMU** – Solid Waste Management Unit

**WMG** – Waste Management Group

**CP Table II Footnote:**

1. The Burning Ground Active Burn Tray SWMUs correspond to the SWMU 14-27 Burn Pads. The trays were constructed on top of the old burn pads. When the trays are closed, the soils under the trays will be included in final closure actions.
2. Date of Commission approval letter for program requirement and remedy standard completed.

**CP TABLE III - CORRECTIVE ACTION PROGRAM**  
**Uncertainty Management Monitoring**  
**Table of Constituents of Concern and the Groundwater Protection Standard**  
**Monitored Every Five-Years**

<b>Hazardous Constituent</b>	<b>GWPS (mg/L or pCi/L)</b>	<b>Basis</b>
Antimony	0.015	BKG
Arsenic	0.012	BKG
Barium	2	MCL
Beryllium	0.004	MCL
Boron	7	GW-Res <sub>NC</sub>
Cadmium	0.005	MCL
Chromium	0.1	MCL
Chromium, Hexavalent	0.1	MCL
Cobalt	2.19	MSC
Copper	1.3	MCL
Lead	0.015	MSC
Mercury	0.003	BKG
Nickel	0.73	MSC
Selenium	0.05	MSC
Silver	0.1825	MSC
Thallium	0.0339	BKG
Tin	21.9	MSC
Vanadium	0.2555	MSC
Zinc	10.95	MSC
1,1,1,2-Tetrachloroethane	0.0328	MSC
1,1,1-Trichloroethane	0.2	MCL
1,1,2,2-Tetrachloroethane	0.005	PQL
1,1,2-Trichloroethane	0.005	MCL
1,1-Dichloroethane	3.65	MSC
1,1-Dichloroethene	0.007	MCL
1,2,3-Trichloropropane	0.01	PQL
1,2-Dichlorobenzene	0.6	MCL
1,2-Dichloroethane	0.005	MCL
1,2-Dichloropropane	0.005	MCL
1,3-Dichlorobenzene	1.095	MSC
1,4-Dichlorobenzene	0.075	MCL
2-Hexanone	2.19	MSC
Acetone	32.85	MSC
Acetonitrile	1.168	MSC
Acrolein	0.05	PQL
Acrylonitrile	0.05	PQL
Allyl Chloride	0.005	PQL
Benzene	0.005	MCL
Bromoform	0.0108	MSC

**CP TABLE III - CORRECTIVE ACTION PROGRAM, Continued**  
**Uncertainty Management Monitoring**  
**Table of Constituents of Concern and the Groundwater Protection Standard**  
**Monitored Every Five-Years**

Hazardous Constituent	GWPS (mg/L or pCi/L)	Basis
Carbon Disulfide	3.65	MSC
Carbon Tetrachloride	0.005	MCL
Chlorobenzene	0.1	MCL
Chloroethane	14.6	MSC
Chloroform	0.365	MSC
Chloromethane	0.0655	MSC
Chloroprene	0.005	PQL
<i>cis</i> -1,2-Dichloroethene	0.07	MCL
Dibromochloromethane	0.0101	MSC
Dichlorodifluoromethane	7.3	MSC
Ethyl Methacrylate	3.285	MSC
Ethylbenzene	0.7	MCL
Isobutanol	10.95	MSC
Methacrylonitrile	1.3	PQL
Methyl Bromide	0.0511	MSC
Methyl Ethyl Ketone	21.9	MSC
Methyl Iodide	0.0511	MSC
Methyl Isobutyl Ketone	2.92	MSC
Methyl Methacrylate	51.1	MSC
Methylene Bromide	0.1136	MSC
Methylene Chloride	0.005	MCL
Pentachloroethane	0.0328	MSC
Propionitrile	0.05	PQL
Styrene	0.1	MCL
Tetrachloroethylene	0.005	MCL
Toluene	1	MCL
<i>trans</i> -1,2-Dichloroethene	0.1	MSC
<i>trans</i> -1,3-Dichloropropene	0.0085	MSC
<i>trans</i> -1,4-Dichloro-2-butene	0.01	PQL
Trichloroethene	0.005	MCL
Trichlorofluoromethane	10.95	MSC
Vinyl Acetate	36.5	MSC
Vinyl Chloride	0.002	MCL
Xylenes, Total	10	MCL
Sulfide	None <sup>1</sup>	None
1,4-Dioxane	0.0077	GW-Res <sub>C</sub>
Uranium-234	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium-235	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium-238	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium, Total	0.03 <sup>2</sup>	MCL <sup>3</sup>
2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>

**CP TABLE III - CORRECTIVE ACTION PROGRAM, Continued**  
**Uncertainty Management Monitoring**  
**Table of Constituents of Concern and the Groundwater Protection Standard**  
**Monitored Every Five-Years**

<b>Hazardous Constituent</b>	<b>GWPS (mg/L or pCi/L)</b>	<b>Basis</b>
4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
2,4-Dinitrotoluene	0.001	PQL <sup>2</sup>
2,6-Dinitrotoluene	0.001	PQL <sup>2</sup>
HMX	0.36	GW-Res <sub>NC Adj</sub>
RDX	0.002	EPA Lifetime HA
MX	0.002	EPA Lifetime HA for RDX
DNX	0.002	EPA Lifetime HA for RDX
TNX	0.002	EPA Lifetime HA for RDX
1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
TNT	0.0036	GW-Res <sub>NC Adj</sub>
Perchlorate	0.026	GW-Res <sub>NC</sub>

<sup>1</sup>Sulfide is not necessarily of concern from a human health standpoint, therefore calculation of human health-based values is not required for the TCEQ. No secondary MCLs or other criteria were identified for sulfide.

<sup>2</sup>GWPS for uranium isotopes is based on units of mass (ug/L) and activity (pCi/L).

<sup>3</sup>Uranium MCL is 30 ug/L. EPA also recommends a drinking water level of 30 pCi/L for combined activity of all isotopes.

**CP Table III Foot Note:**

**Basis for General Constituents of Concern:**

**MSC** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Groundwater Medium-Specific Concentration (MSC), Residential Risk Reduction Standard No. 2 specified in 30 TAC §335 Subchapter S.

**MCL** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Groundwater Maximum Contaminant Level (MCL) specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subparts B and G.

**BKG** Background from the approved *Risk Reduction Rule Guidance to the Pantex RFIR (BWXT Pantex and SAIC, 2002, Updated March 2004)*.

**PQL** Non-detectable at Practical Quantitation Limit (PQL) as determined by the analytical methods of the United States Environmental Protection Agency's publication SW-846 Test Methods for Evaluating Solid Waste, most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. The PQL is the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions across all Pantex laboratories.

**Basis for Constituents of Concern in the Corrective Action Program:**

**GW-Res** TCEQ Risk Reduction Standard No. 2 Groundwater MSC for Residential Use  
**HA** EPA Health Advisory  
**MCL** EPA Maximum Contaminant Level  
**PQL** Practical Quantitation Limit  
**C** Carcinogenic  
**NC** Noncarcinogenic  
**Adj** Value adjusted for a cumulative hazard index or quotient.

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

<b>Unit</b>	<b>Hazardous Constituents</b>	<b>GWPS (mg/L)</b>	<b>Basis</b>
SWMU 3	<b><i>Perched Zone 11 Sector Indicator List</i></b>		
SWMU 12	<b><i>Metals</i></b>		
SWMU 113	Boron	7	GW-Res <sub>NC</sub>
AOC 8a	<b><i>VOCs</i></b>		
Unassigned	1,2-Dichloroethane	0.005	MCL
Evaporation Pit	1,4-Dioxane <sup>1</sup>	0.0077	GW-Res <sub>C</sub>
South of Bay 11/ West of Bay 6	Chloroform <sup>1</sup>	0.08	MCL for Trihalomethanes (including Chloroform)
Unassigned	PCE	0.005	MCL
SWMU	TCE	0.005	MCL
Evaporation Pit	<i>cis</i> -1,2-dichloroethene	0.07	MCL
East of Bay 3	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
AOC 11	Vinyl Chloride	0.002	MCL
SWMU 5-13a	<b><i>High Explosives</i></b>		
Unassigned – 11-14 Pond	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL <sup>2</sup>
	2,6-Dinitrotoluene	0.001	PQL <sup>2</sup>
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	<b><i>Miscellaneous</i></b>		
	Perchlorate	0.026	GW-Res <sub>NC</sub>

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM, Continued**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

Unit	Hazardous Constituents	GWPS (mg/L)	Basis
SWMU 47	<i>Perched Burning Ground Sector Indicator List</i>		
	<i>Metals</i>		
	Boron	7.3	GW-Res <sub>NC</sub>
	<i>VOCs</i>		
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<i>High Explosives</i>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MXN	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	<i>Miscellaneous</i>		
	Perchlorate	0.026	GW-Res <sub>NC</sub>

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM, Continued**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

Unit	Hazardous Constituents	GWPS (mg/L)	Basis
AOC 13	<i>Perched Southeast Sector Indicator List</i>		
SWMU 2	<u>Metals</u>		
SWMU 5-04 a and b	Boron	7	GW-Res <sub>NC</sub>
SWMU 5-05	Chromium (hexavalent)	0.1	MCL
SWMU 5-12a, SWMU 5-13c	Chromium (total)	0.1	MCL
SWMU 122 a and b	<u>VOCs</u>		
SWMU 123	1,2-Dichloroethane	0.005	MCL
SWMU 136	PCE	0.005	MCL
Unassigned 12-5 Concrete Sump	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<u>High Explosives</u>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL2
	2,6-Dinitrotoluene	0.001	PQL2
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	MNX	0.0002	EPA Lifetime HA for RDX <sup>5</sup>
	DNX	0.0002	EPA Lifetime HA for RDX <sup>5</sup>
	TNX	0.0002	EPA Lifetime HA for RDX <sup>5</sup>

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM, Continued**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

Unit	Hazardous Constituents	GWPS (mg/L)	Basis
SWMU 6	<i>Perched Miscellaneous and North Area Indicator List</i>		
	<i>Metals</i>		
	Boron	7.3	GW-Res <sub>NC</sub>
	<i>VOCs</i>		
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<i>High Explosives</i>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
TNT	0.0036	GW-Res <sub>NC Adj</sub>	

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM, Continued**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

<b>Unit</b>	<b>Hazardous Constituents</b>	<b>GWPS (mg/L)</b>	<b>Basis</b>
Early Detection	<b><i>Ogallala Southeast Area Indicator List</i></b>		
	<i>Metals</i>		
	Boron	7.3	GW-Res <sub>NC</sub>
	Chromium (hexavalent)	0.1	MCL
	Chromium (total)	0.1	MCL
	<i>VOCs</i>		
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<i>High Explosives</i>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>

**CP TABLE IIIA- CORRECTIVE ACTION PROGRAM, Continued**  
**Table of Indicator Parameters by Indicator Areas and**  
**Groundwater Protection Standard**

Unit	Hazardous Constituents	GWPS (mg/L)	Basis
Early Detection	<b><i>Ogallala Northwest Area Indicator List</i></b>		
	<i>Metals</i>		
	Boron	7.3	GW-Res <sub>NC</sub>
	<i>VOCs</i>		
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<i>HighExplosives</i>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MXN	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	<i>Miscellaneous</i>		
	Perchlorate	0.026	GW-Res <sub>NC</sub>

**CP Table IIIA Foot Note:**

See CP-50284 Attachment A well maps depicting indicator areas for perched and Ogallala monitoring wells.

**GW-Res**—TCEQ Risk Reduction Standard No. 2 Groundwater MSC for Residential Use

**HA** – EPA Health Advisory

**MCL**—EPA Maximum Contaminant Level

**PQL**—Practical Quantitation Limit

**C**—Carcinogenic

**NC**—Noncarcinogenic

**Adj**—Value adjusted for a cumulative hazard index or quotient.

*The following GWPS designations from the Risk Reduction Rule and EPA were used:*

- GW-Res** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Groundwater Medium-Specific Concentration (MSC), Residential {...or Industrial...} Risk Reduction Standard No. 2 {...or No. 3} specified in 30 TAC §335 Subchapter S.
- HA** EPA Health Advisory. Health Advisories are guidance values based on non-cancer health effects for different durations of exposure (e.g., one-day, ten-day, longer-term, and lifetime).
- MCL** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Groundwater Maximum Contaminant Level (MCL) specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subparts B and G.
- SMCL** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Groundwater Secondary Maximum Contaminant Level (MCL) specified in 40 CFR Part 143, National Secondary Drinking Water Regulations.
- AL** Alternate Concentration Limit pursuant to 30 TAC §335.160(b) based upon the Action Level (AL) specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subpart I.
- BKG** Background as determined in accordance with Provision VI.A.
- PQL** Non-detectable at Practical Quantitation Limit (PQL) as determined by the analytical methods of the United States Environmental Protection Agency's publication SW-846 Test Methods for Evaluating Solid Waste, most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. PQL is indicated in parentheses. PQL is the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions across all Pantex laboratories.

**CP TABLE IV- COMPLIANCE MONITORING PROGRAM**

**Table of Hazardous and Solid Waste Constituents and  
Quantitation Limits for Compliance Monitoring**

**[RESERVED]**

**CP TABLE IVA- COMPLIANCE MONITORING PROGRAM**

**Table of Detected Hazardous Constituents and the Groundwater Protection Standard  
for Compliance Monitoring**

**[RESERVED]**

**CP TABLE V - Designation of Wells**

Indicator Area*	Well Number	Compliance Plan Objectives
-----------------	-------------	----------------------------

**Point of Compliance Wells:**

Burning Ground	PTX01-1008	Compliance
Burning Ground	PTX01-1001	Compliance
Burning Ground	PTX01-1010	Compliance
Playa 1	PTX06-1023	Compliance
Southeast	PTX06-1031	Compliance
Southeast	PTX06-1034	Compliance
Southeast	PTX06-1042	Compliance
Southeast	PTX06-1045	Compliance
Southeast	PTX06-1046	Compliance
Playa 1	PTX06-1050	Compliance
Southeast	PTX06-1052	Compliance
Southeast	PTX06-1056	Compliance
Southeast	PTX06-1103	Compliance
Southeast	PTX06-1126	Compliance
Southeast	PTX06-1127	Compliance
Southeast	PTX06-1130	Compliance
Southeast	PTX06-1146	Compliance
Southeast	PTX06-1153	Compliance
Southeast	PTX06-1154	Compliance
Zone 11	PTX06-1155	Compliance
Zone 11	PTX06-1156	Compliance
Playa 1	PTX07-1002	Compliance
Playa 1, Zone 11	PTX07-1P02	Compliance

**Point of Exposure Wells**

Burning Ground	PTX01-1012	Exposure
Northern Plant Boundary	PTX01-1013	Exposure
Northern Plant Boundary	PTX06-1064	Exposure
Northern Plant Boundary	PTX06-1068	Exposure
Southeast	PTX06-1138	Exposure
Southeast	PTX06-1139	Exposure
North of Playa 1	PTX06-1143	Exposure
Northern Plant Boundary	PTX06-1144	Exposure

**Alternate Point of Exposure Wells**

None
------

**Background Wells**

None
------

The above wells are also depicted in Attachment A well maps. Observation wells are also depicted in maps in Attachment A.

Note: Wells and piezometers identified on Attachment A maps that are not listed in this table are subject to change, upon approval by the executive director, without modification to the Compliance Plan.

**CP TABLE VI**

**Compliance Period for RCRA-Regulated Units**

**[RESERVED]**

**CP TABLE VII - REPORTING REQUIREMENTS**

ITEM	PROGRAM	REPORTING FREQUENCY	REQUIREMENTS
1.	All programs	Annually by June 30	Each report shall be certified by a qualified engineer and/or geologist.
2.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	A table of all modifications and amendments made to this Compliance Plan with their corresponding approval dates by the executive director or the Commission and a brief description of each action;
3.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	A summary of any activity within an area subject to institutional control.
4.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	Tabulation of well casing elevations in accordance with Attachment B;
5.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	Certification and well installation diagram for any new well installation or replacement and certification for any well plugging and abandonment;
6.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	Recommendation for any changes to the program;
7.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	Any other items requested by the executive director;
8.	Corrective Action Compliance Monitoring [Reserved]	Annual June 30	Water table maps shall be prepared from the groundwater data collected pursuant to Provision VII and shall be evaluated by the Permittee with regard to the following parameters: <ol style="list-style-type: none"> <li>a. Development and maintenance of an area of capture during operation of the system;</li> <li>b. Direction and gradient of groundwater flow;</li> <li>c. Effectiveness of hydrodynamic control of the contaminated zone during operation; and,</li> <li>d. Estimation of the rate and direction of groundwater contamination migration.</li> </ol>

**CP TABLE VII, Continued  
 REPORTING REQUIREMENTS**

ITEM	PROGRAM	REPORTING FREQUENCY	REQUIREMENTS
9.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	<p>The Permittee shall submit a report to each recipient listed in Provision X.C, which includes the information in items 3 through 26 determined since the previously submitted report, if those items are applicable.</p> <p>If both Corrective Action and Compliance Monitoring [Reserved] Programs are authorized, then the June 30th report shall contain information required for both programs.</p>
10.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	<p>The Corrective Action System(s) authorized under Provision II in operation during the reporting period and a narrative summary of the evaluations made in accordance with Provisions V, VI, and VII of this Compliance Plan for the preceding reporting period. The reporting periods shall be annual, January 1 through December 31, for Corrective Action Monitoring, unless an alternative schedule is approved by the Commission. The period for Compliance Monitoring [Reserved] shall be based on the calendar year;</p>
11.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	<p>The method(s) utilized for management of recovered/purged groundwater shall be identified in accordance with Provision II.H. The Permittee shall maintain this list as part of the facility operating record and make it available for inspection upon request.</p>
12.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	<p>An updated table and map of all monitoring and Corrective Action System wells. The wells to be sampled shall be those wells proposed in the Compliance Plan Application referenced in Provision I.G. and any changes subsequently approved by the executive director pursuant to Provision II.C. Provide in chronological order, a list of those wells which have been added to, or deleted from, the groundwater monitoring and remediation systems since original issuance of the Compliance Plan. Include the date of the Commissions approval for each entry;</p>
13.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	<p>The results of the chemical analyses, submitted in a tabulated format acceptable to the executive director which clearly indicates each parameter that exceeds the Groundwater Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the executive director;</p>

**CP TABLE VII, Continued  
 REPORTING REQUIREMENTS**

ITEM	PROGRAM	REPORTING FREQUENCY	REQUIREMENTS
14.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	Tabulation of all water level elevations required in Provision VI.C.4.a depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous monitoring report;
15.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	Potentiometric surface maps showing the elevation of the water table at the time of sampling, delineation of the radius of influence of the Corrective Action System, and the direction of groundwater flow gradients outside any radius of influence;
16.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	Tabulation of all data evaluation results pursuant to Provision V.D and status of each well with regard to compliance with the Corrective Action objectives and compliance with the GWPS;
17.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	An updated summary as required by CP Table VIII;
18.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	Summary of any changes made to the monitoring/corrective action program and a summary of well inspections, repairs, and any operational difficulties;
19.	Corrective Action  Compliance Monitoring [Reserved]	Annual  June 30	A notation of the presence or absence of non-aqueous phase liquids (NAPLs), both light and dense phases, in each well during each sampling event since the last event covered in the previous monitoring report and tabulation of depth and thickness of NAPLs, if detected;
20.	Corrective Action only	Annual June 30 Quarterly 90 days after end of quarter	Quarterly tabulations of quantities of recovered groundwater and NAPLs, and graphs of monthly recorded flow rates versus time for the Recovery Wells during each reporting period. A narrative summary describing and evaluating the NAPL recovery program shall also be submitted;

**CP TABLE VII, Continued  
 REPORTING REQUIREMENTS**

ITEM	PROGRAM	REPORTING FREQUENCY	REQUIREMENTS
21.	Corrective Action only	Annual June 30  Quarterly 90 days after end of quarter	Tabulation of the total contaminant mass recovered from each recovery system for each reporting period;
22.	Corrective Action only	Annual	Maps of the contaminated area where GWPSs are exceeded depicting concentrations of CP Table IIIA constituents and any newly detected CP Table III constituents as isopleth contours or discrete concentrations if isopleth contours cannot be inferred. Areas where concentrations of constituents exceed the GWPS should be clearly delineated. Depict the boundary of the plume management zone (PMZ), if applicable;
23.	Corrective Action only	Annual	Maps and tables indicating the extent and thickness of the NAPLs both light and dense phases, if detected;
24.	Corrective Action only	Quarterly 90 days after end of quarter	Corrective Measures Implementation (CMI) Progress Report or Response Action Effectiveness Report or Response Action Completion Report to be submitted as a section of the Compliance Plan report in accordance with Provision VIII.F, if necessary. The Permittee will include a narrative summary of the status of the approved final corrective measures conducted in accordance with the approved CMI Workplan or RAP, and that the requirements of Provision VIII.G are being met. The report shall include the following information: <ul style="list-style-type: none"> <li>a. Information required for Item 20 of this table.</li> <li>b. Information required for Item 21 of this table.</li> <li>c. Trend charts of target COCs and degradation products at downgradient performance monitoring locations for the in-situ bioremediation systems.</li> <li>d. Summary of unexpected conditions, if found, at monitoring wells.</li> </ul>
25.	Corrective Action only	Annual	The Permittee will include a narrative summary of the status of each Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) subject to the requirements of Provision VIII and ICMs Program for a SWMU and/or AOC which documents that the objectives of Provision VIII.H.2 are being achieved. This summary shall be included as a section of the Compliance Plan annual report.

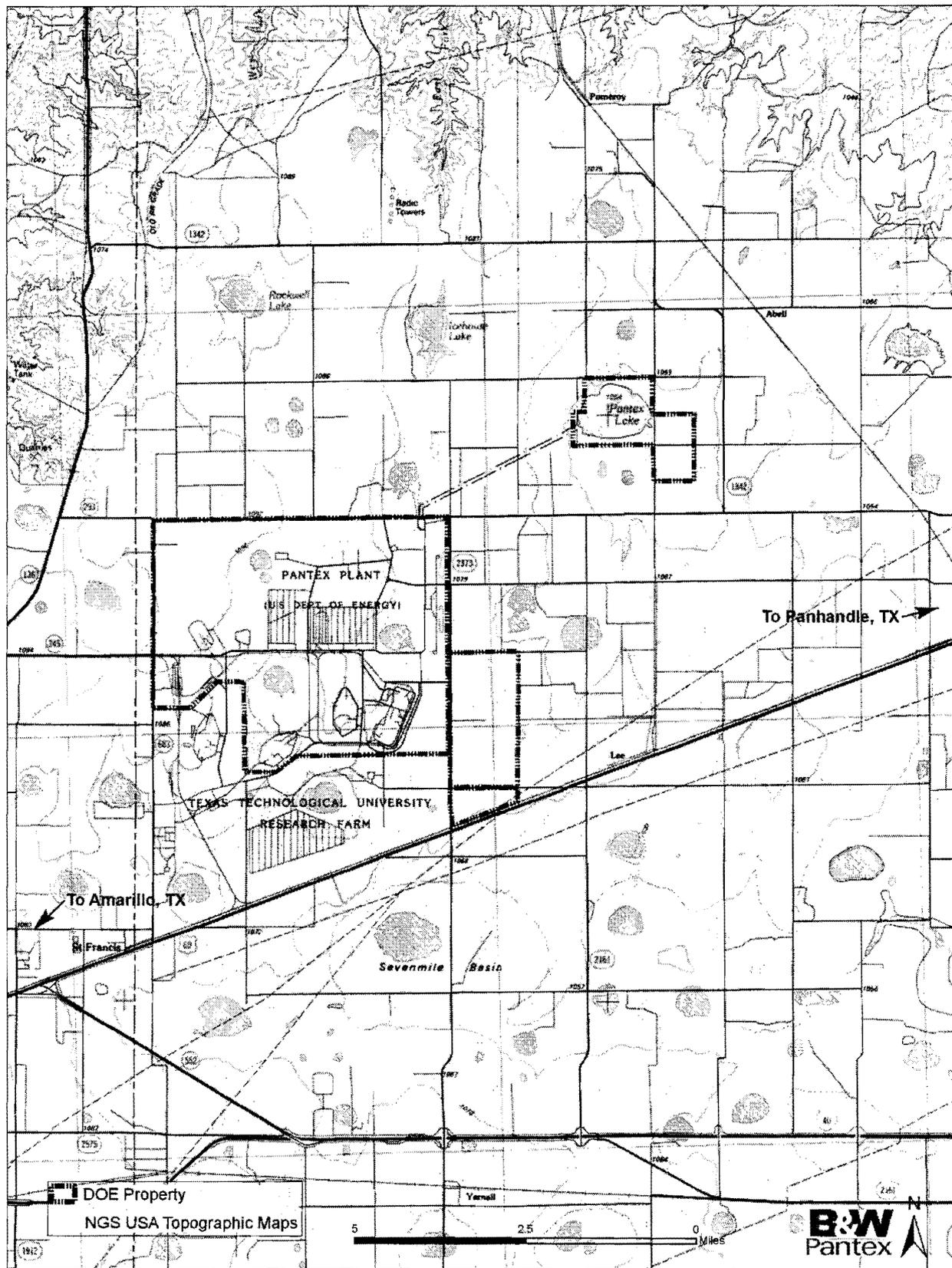
**CP TABLE VII, Continued**  
**REPORTING REQUIREMENTS**

<b>ITEM</b>	<b>PROGRAM</b>	<b>REPORTING FREQUENCY</b>	<b>REQUIREMENTS</b>
26.	Corrective Action only	5-Year Review	Conduct 5-year review to be consistent with CERCLA §121(c) and the NCP (40 CFR Part 300.430(f)(4)(ii)). The 5-year review will be conducted to evaluate the need to adjust corrective actions and associated monitoring.

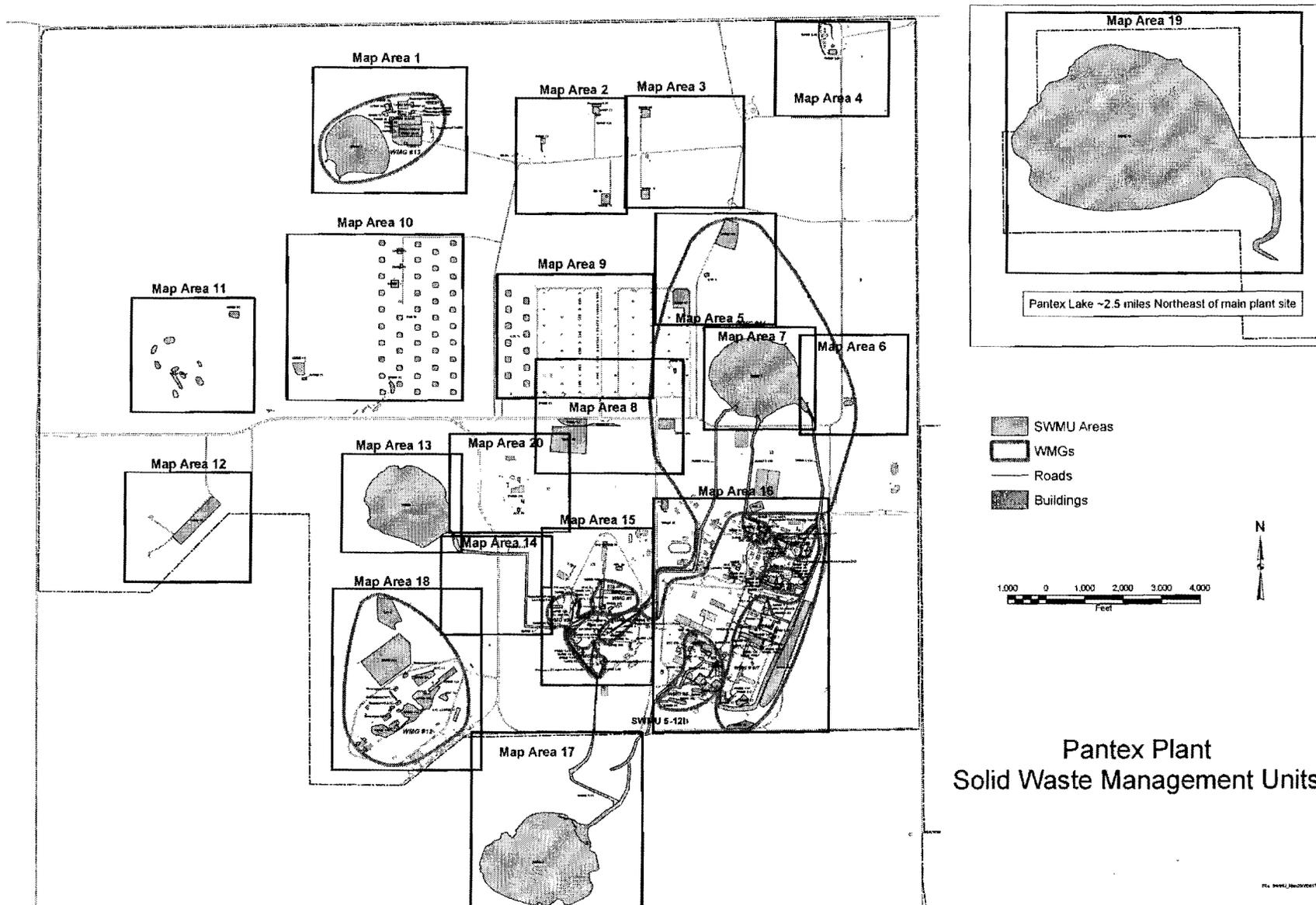
**CP TABLE VIII - COMPLIANCE SCHEDULE**

**[RESERVED]**

**ATTACHMENT A – FACILITY SITE MAPS**

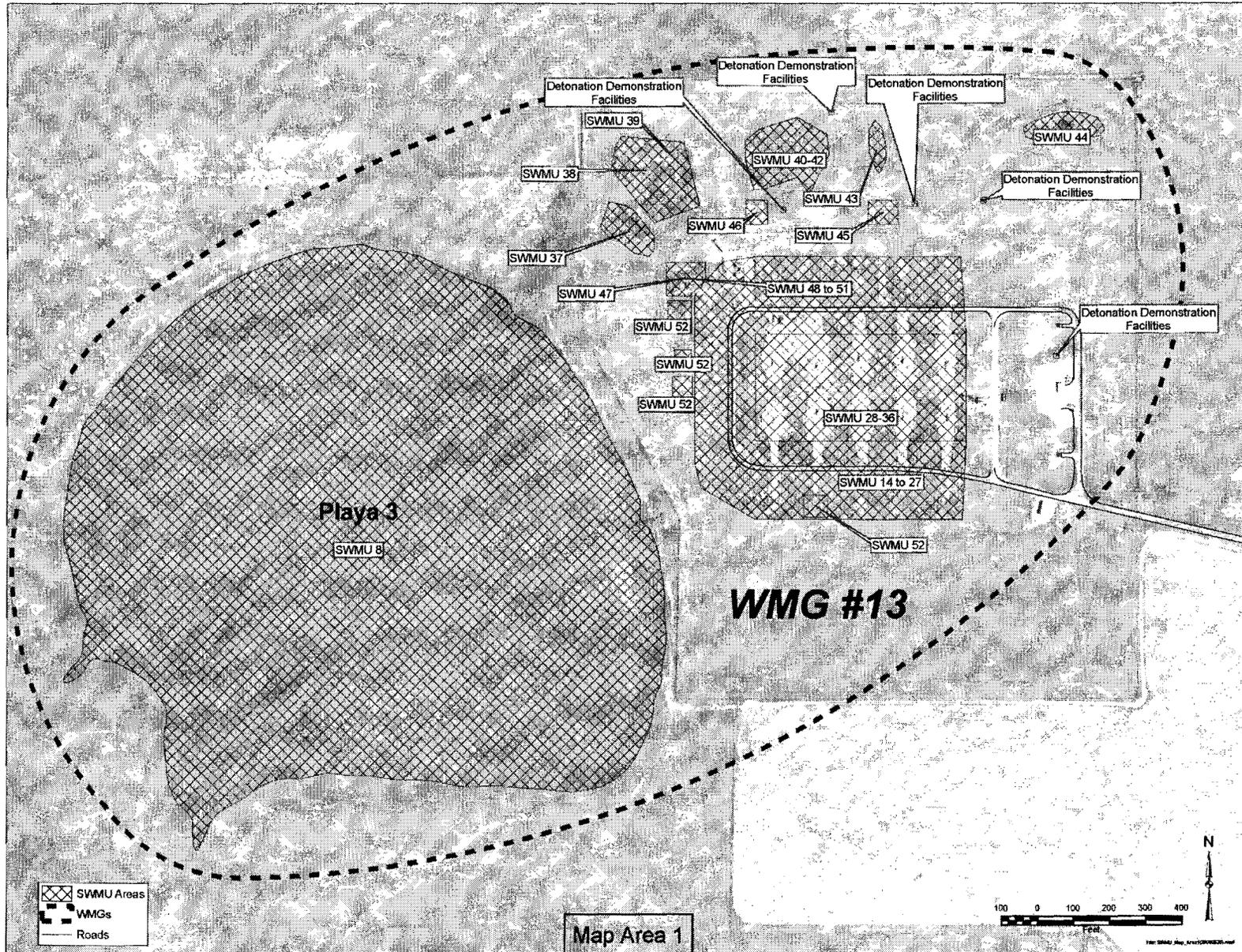


Attachment A, Facility Site Map, Sheet 1 of 26

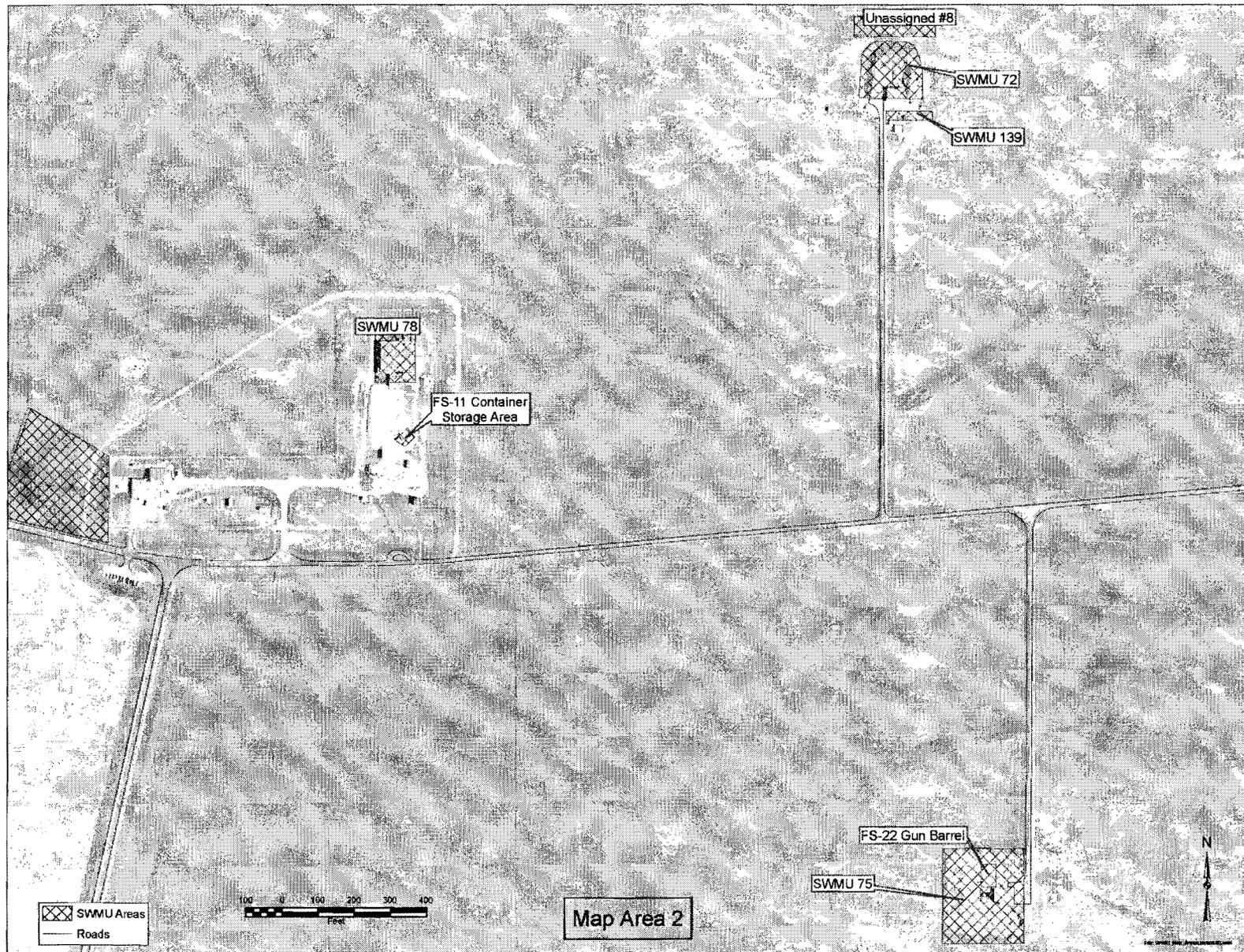


Attachment A, SWMU Map Areas, Sheet 2 of 26

PL 50284/50284/0011 Rev. 0



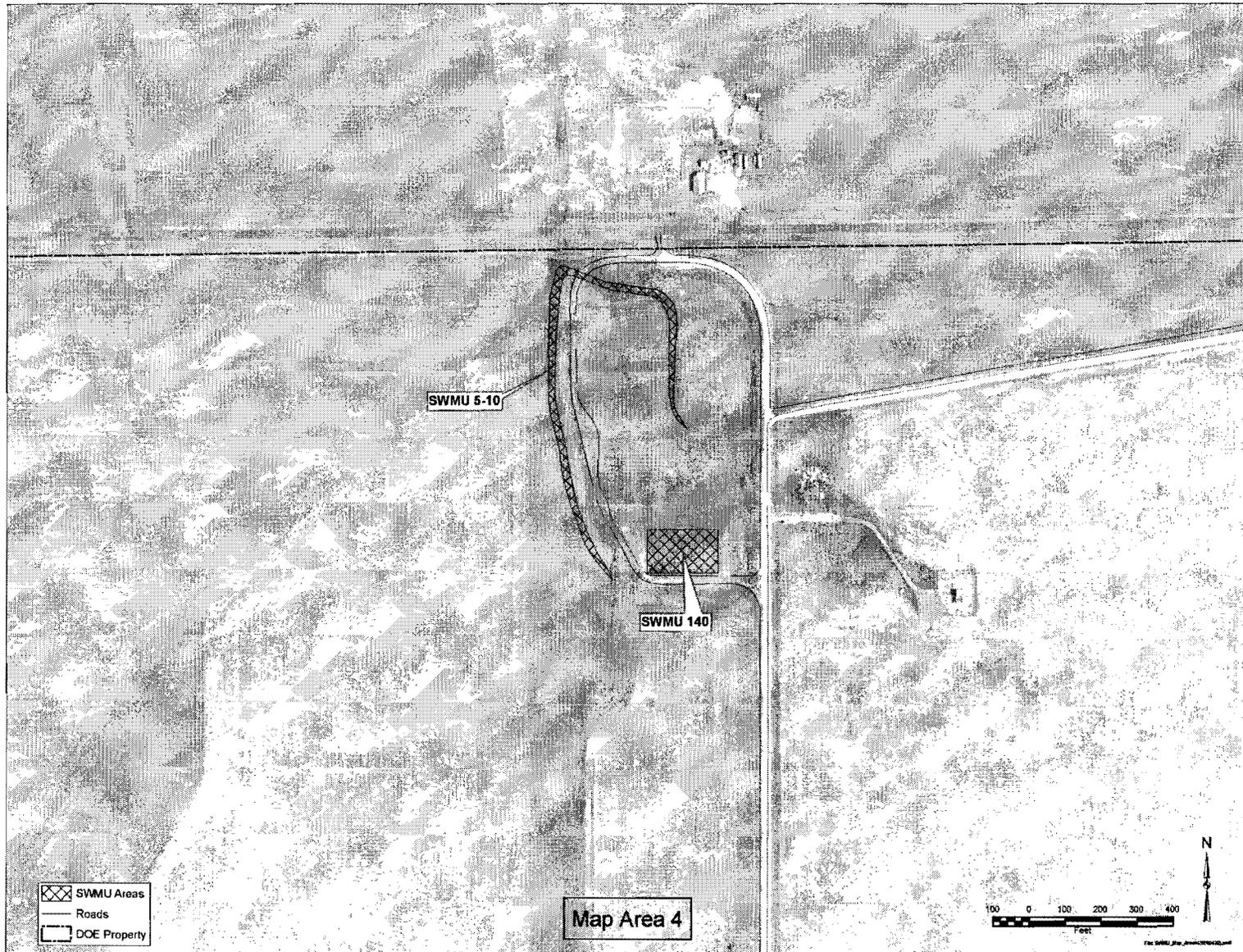
Attachment A, SWMU Location Map Area 1, Sheet 3 of 26



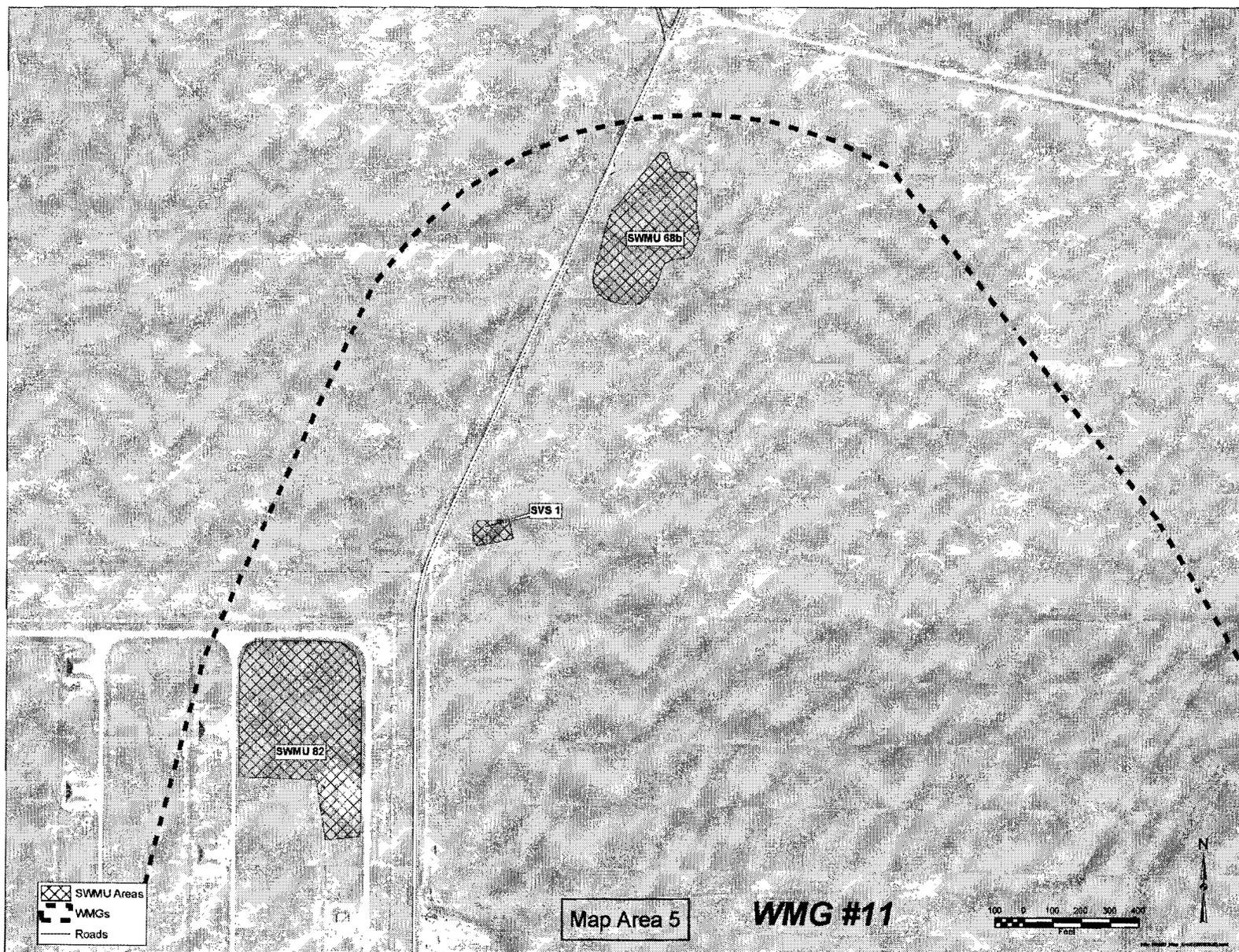
Attachment A, SWMU Location Map Area 2, Sheet 4 of 26



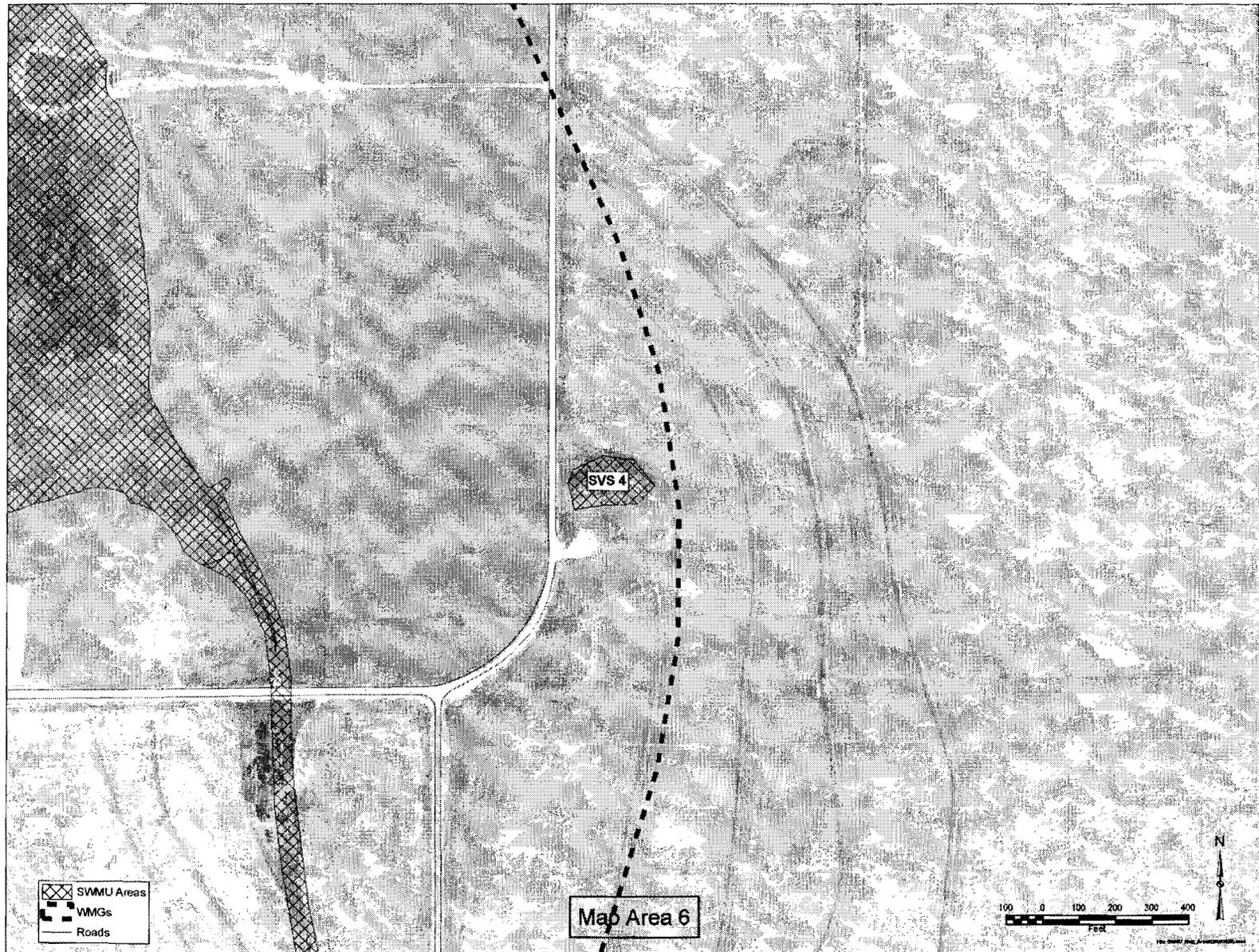
Attachment A, SWMU Location Map Area 3, Sheet 5 of 26



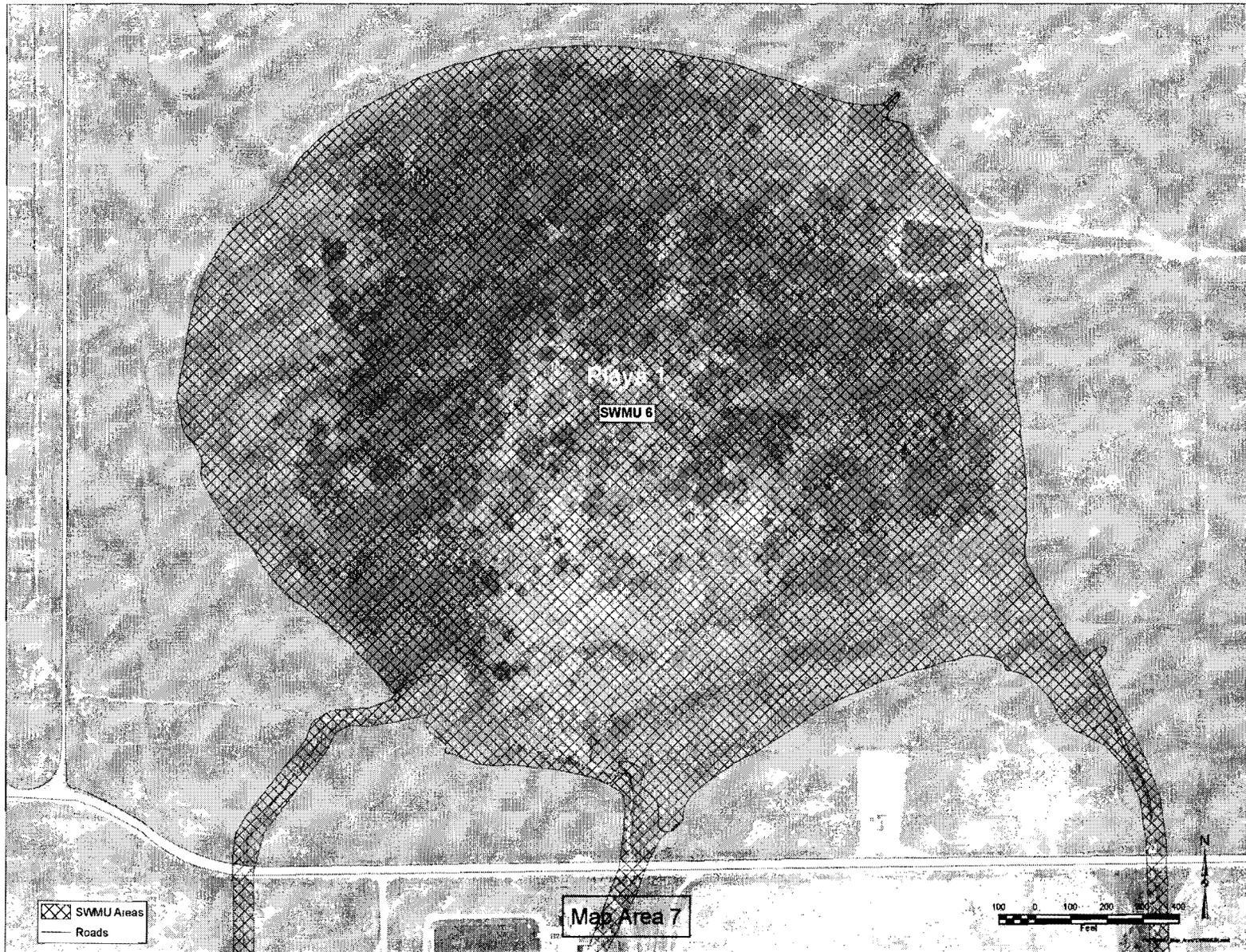
Attachment A, SWMU Location Map Area 4, Sheet 6 of 26



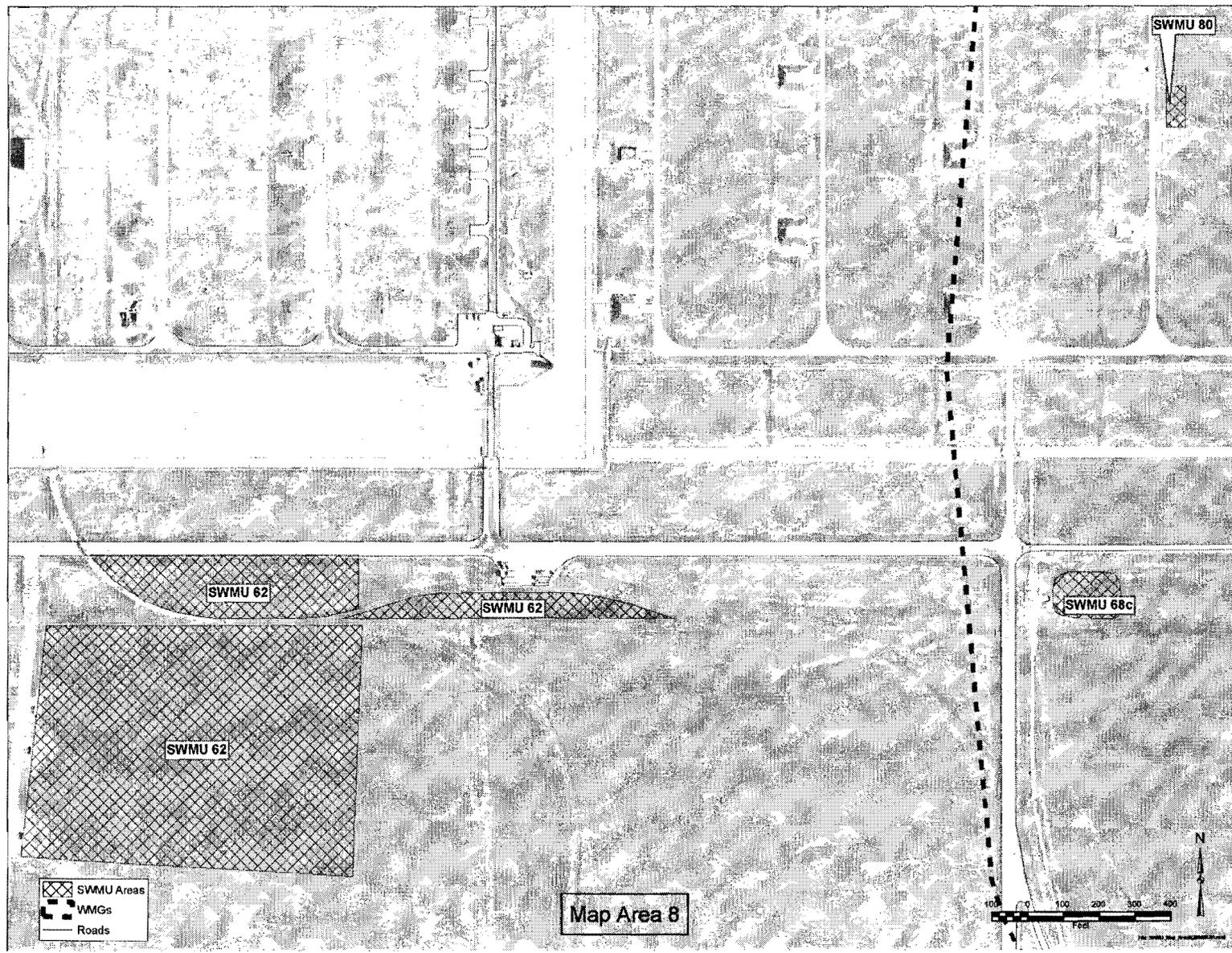
Attachment A, SWMU Location Map Area 5, Sheet 7 of 26



Attachment A, SWMU Location Map Area 6, Sheet 8 of 26



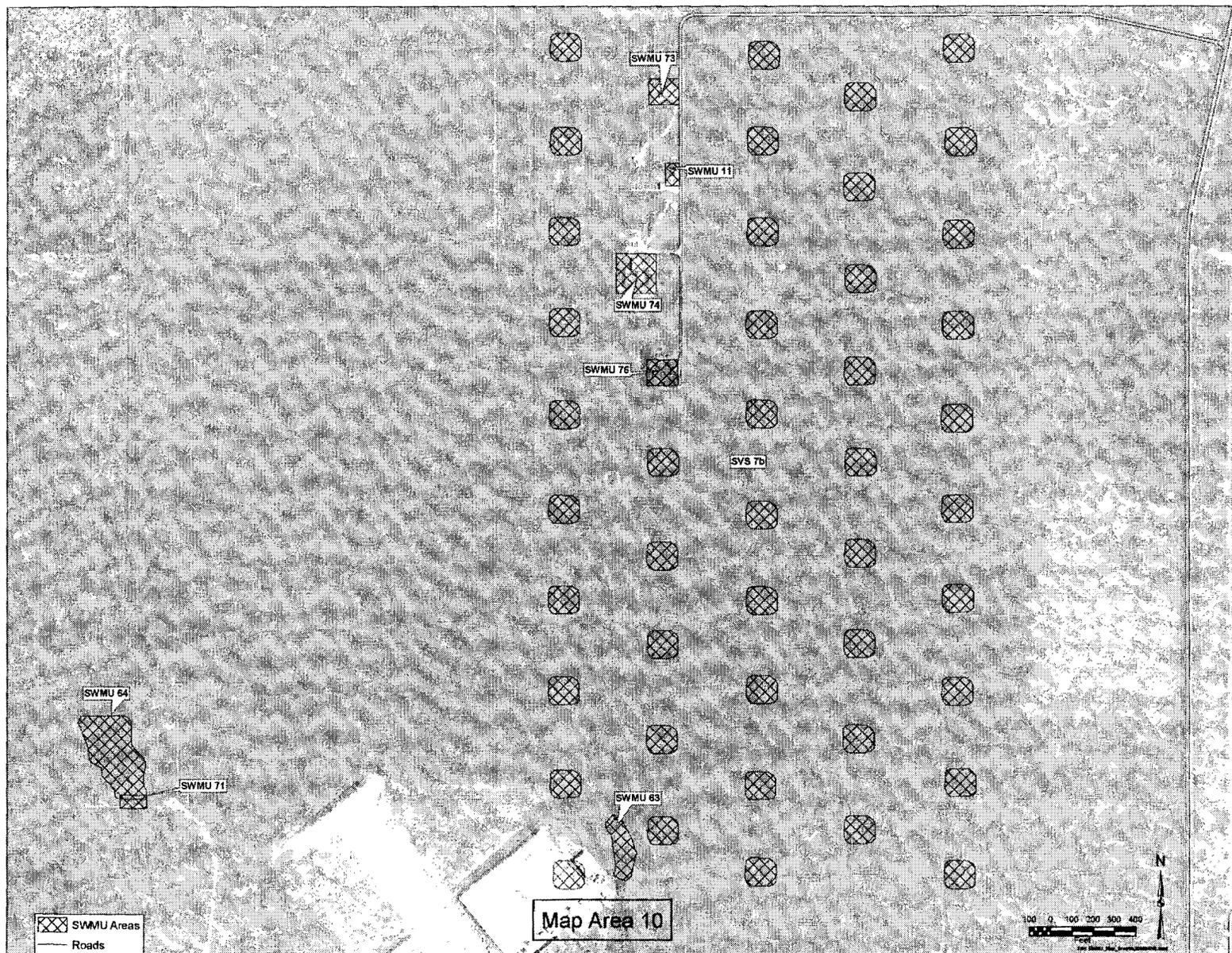
Attachment A, SWMU Location Map Area 7, Sheet 9 of 26



Attachment A, SWMU Location Map Area 8, Sheet 10 of 26



Attachment A, SWMU Location Map Area 9, Sheet 11 of 26



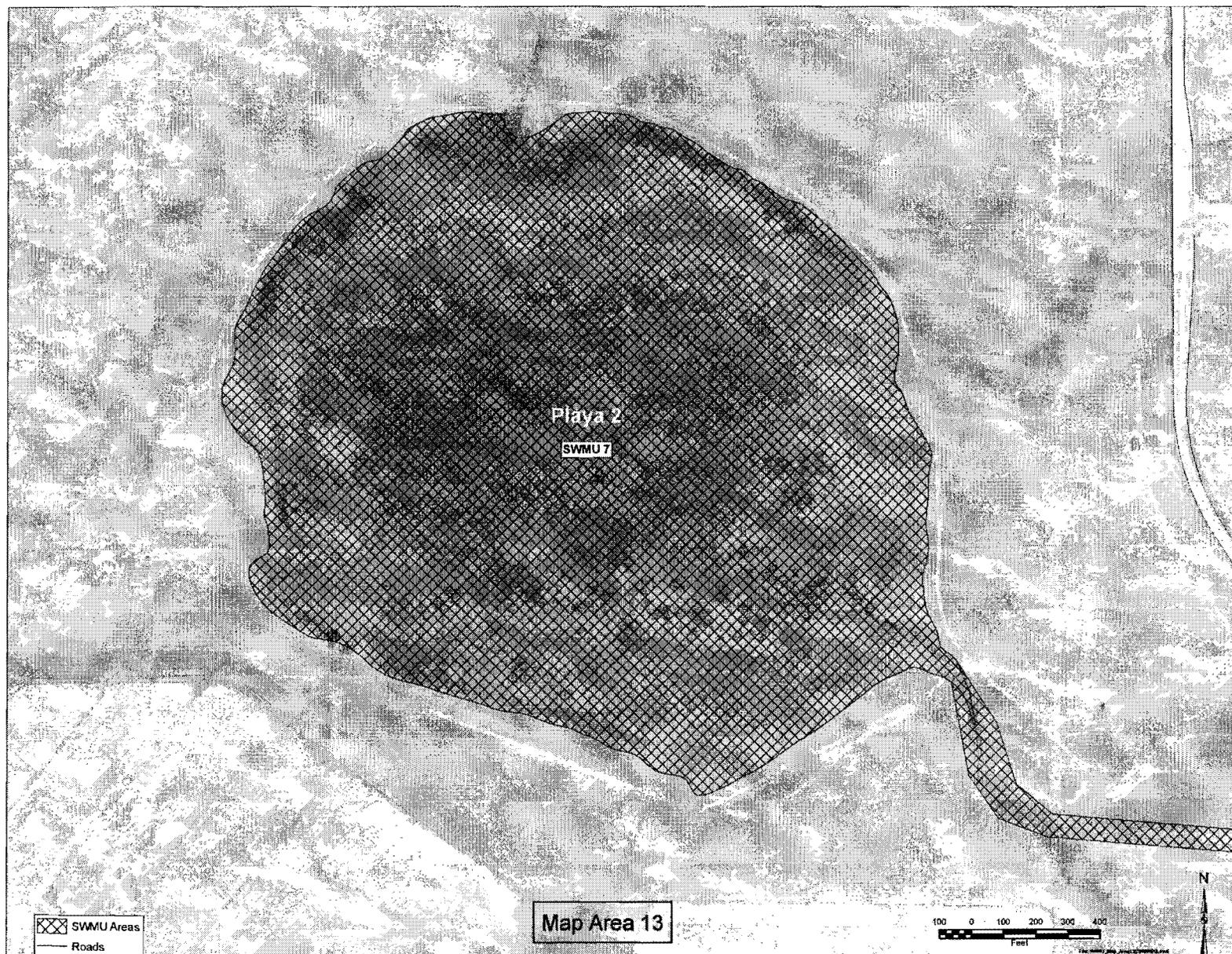
Attachment A, SWMU Location Map Area 10, Sheet 12 of 26



Attachment A, SWMU Location Map Area 11, Sheet 13 of 26



Attachment A, SWMU Location Map Area 12, Sheet 14 of 26

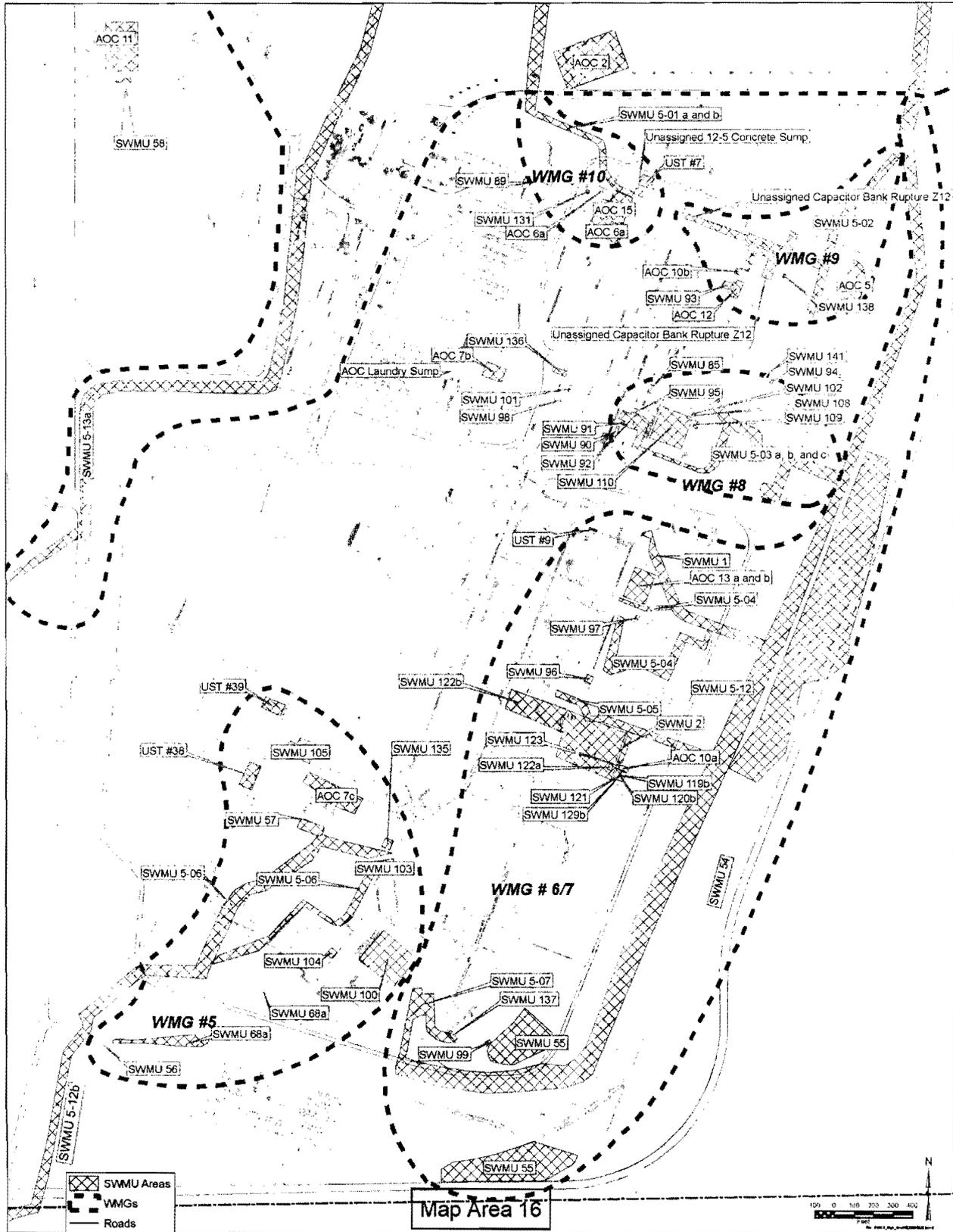


Attachment A, SWMU Location Map Area 13, Sheet 15 of 26



Attachment A, SWMU Location Map Area 14, Sheet 16 of 26

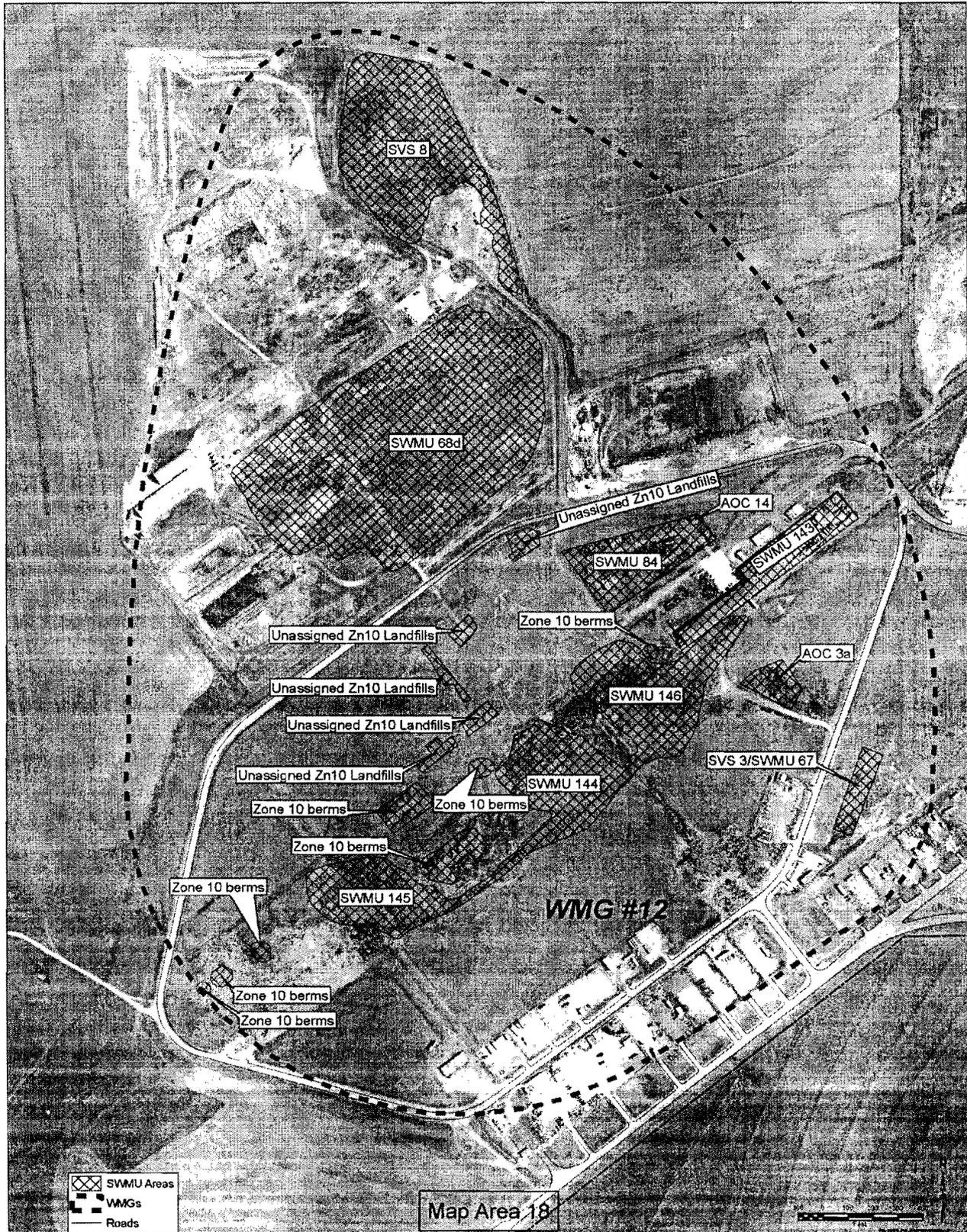




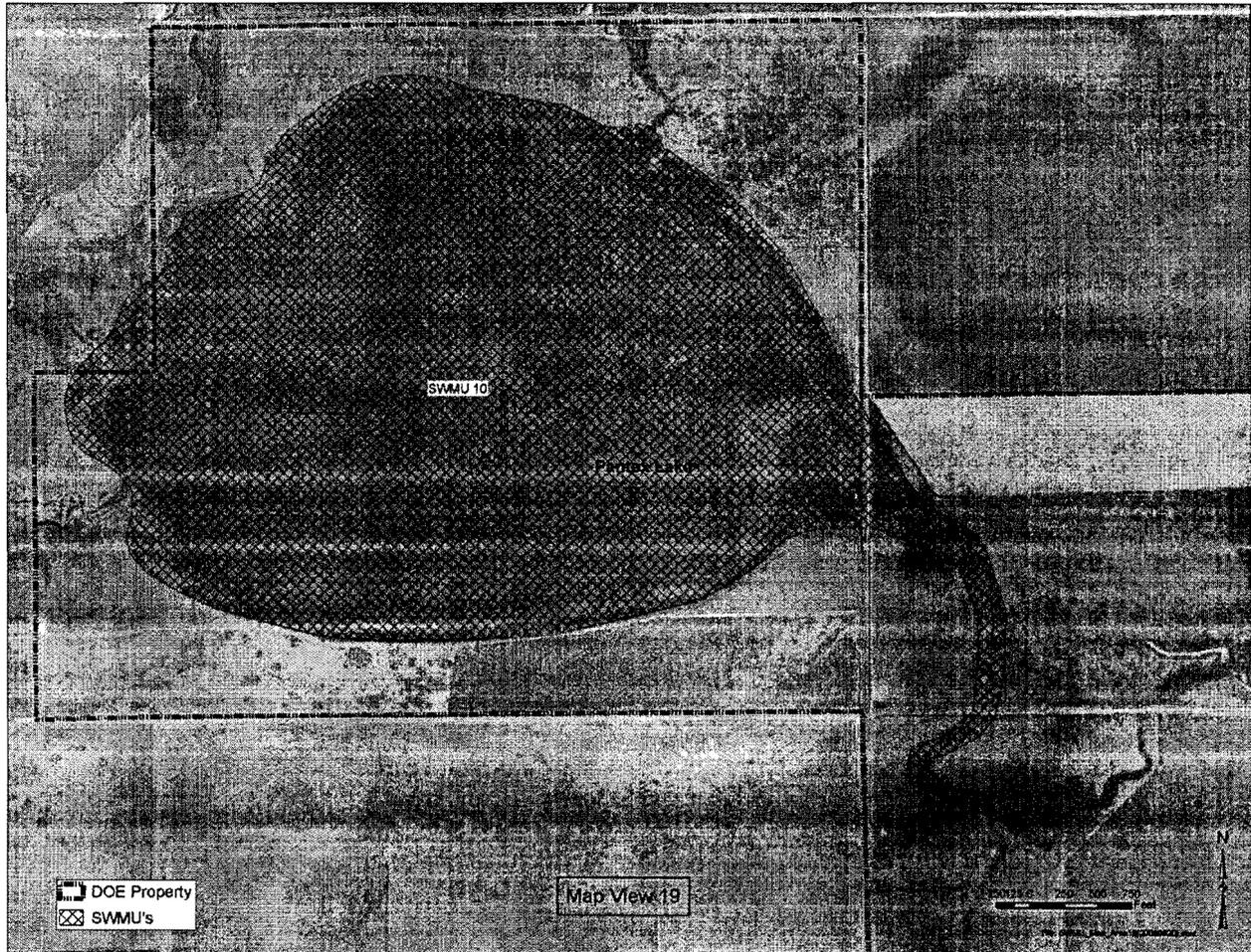
Attachment A, SWMU Location Map Area 16, Sheet 18 of 26



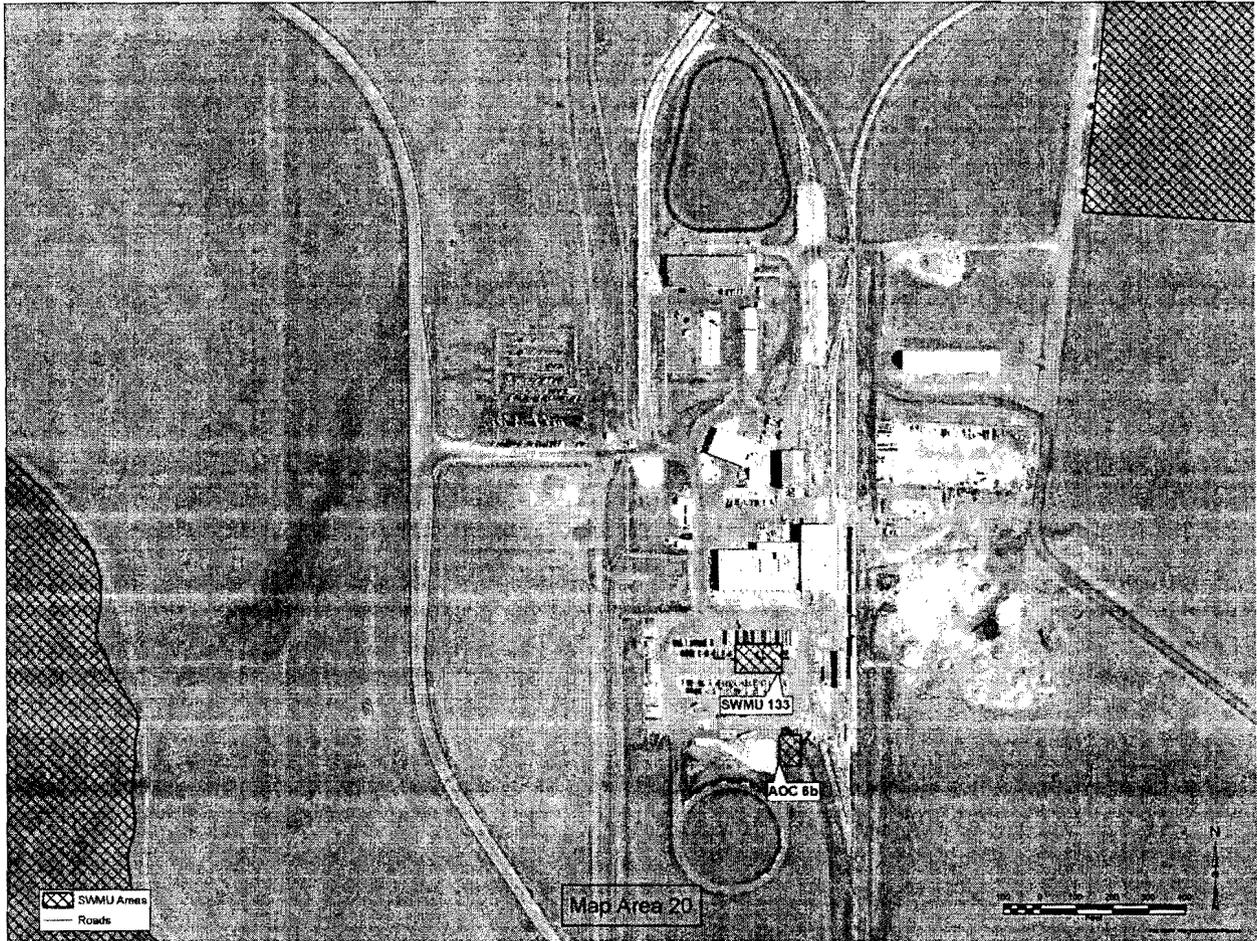
Attachment A, SWMU Location Map Area 17, Sheet 19 of 26



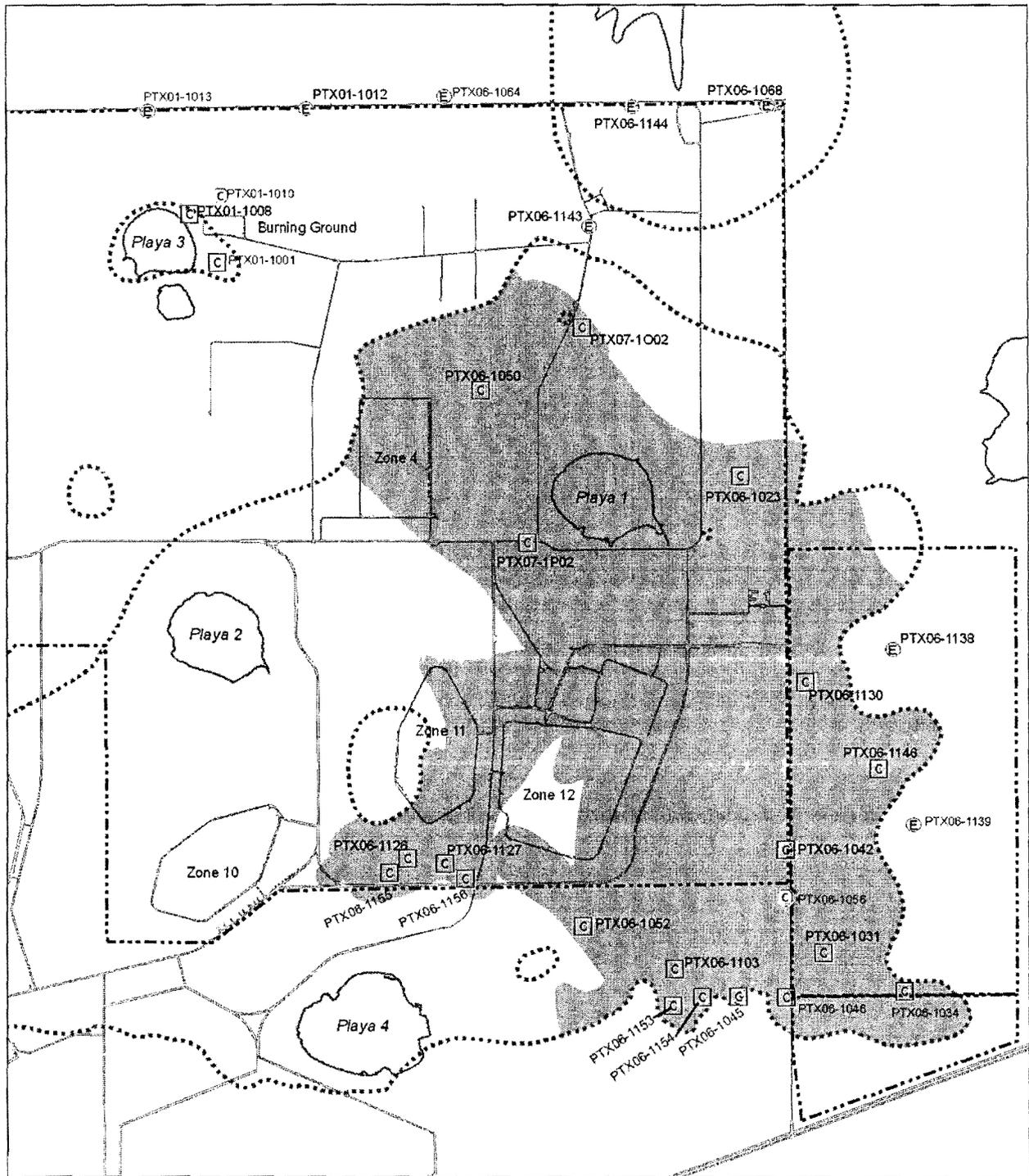
Attachment A, SWMU Location Map Area 18, Sheet 20 of 26



Attachment A, SWMU Location Map Area 19, Sheet 21 of 26



Attachment A, SWMU Location Map Area 20, Sheet 22 of 26



- ⓐ Ogallala Point of Compliance
- ⓔ Ogallala Point of Exposure
- ⓐ Perched Point of Compliance

- ⊞ Extent of All COCs
- ⋯ Approximate Perched Extent
- ⊞ USDOE/NNSA Property

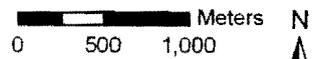
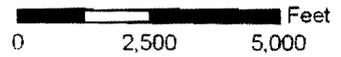
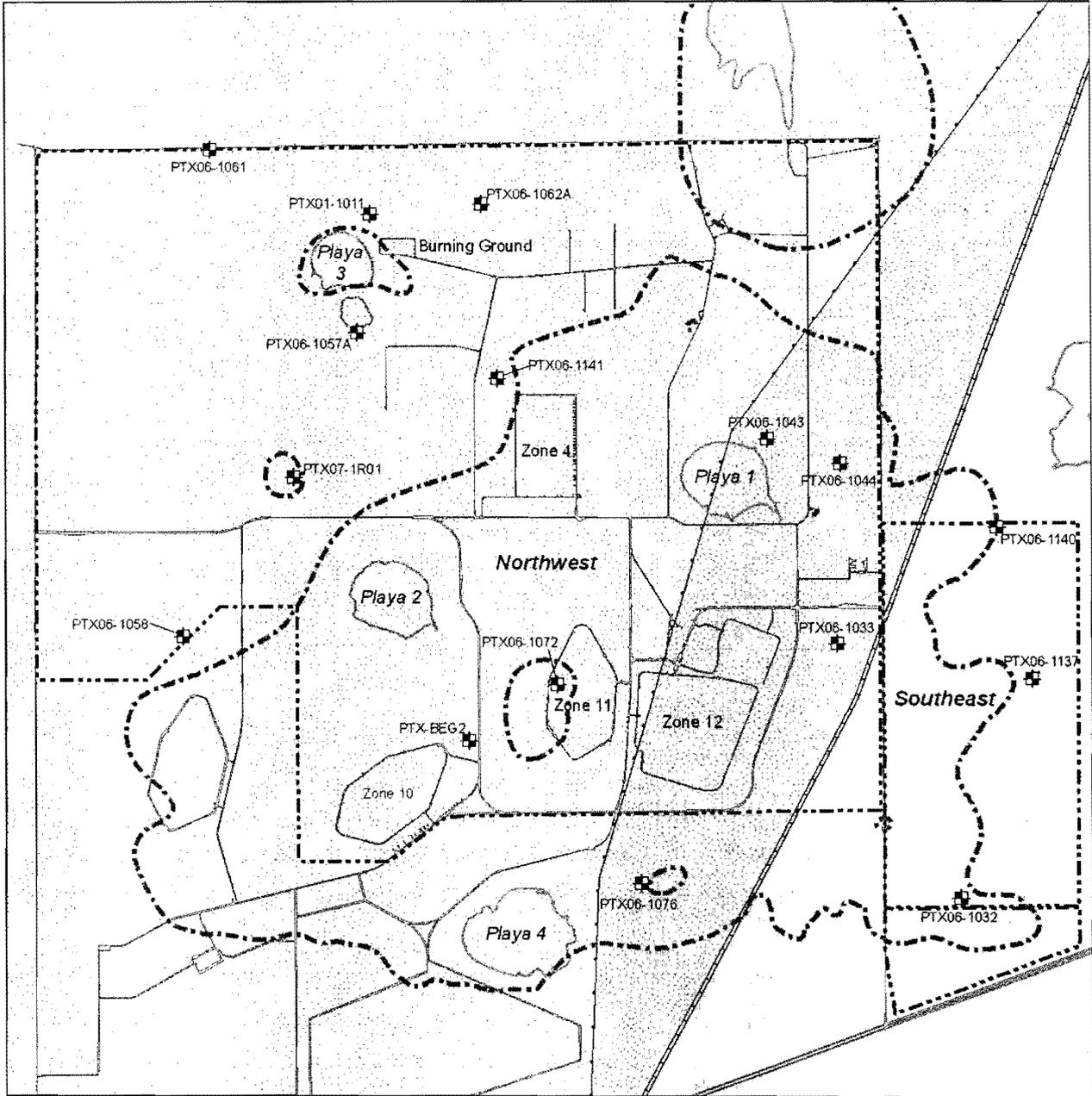


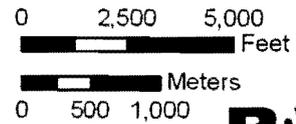
Table V Point of Compliance and Exposure Wells  
 Attachment A, Sheet 23 of 26



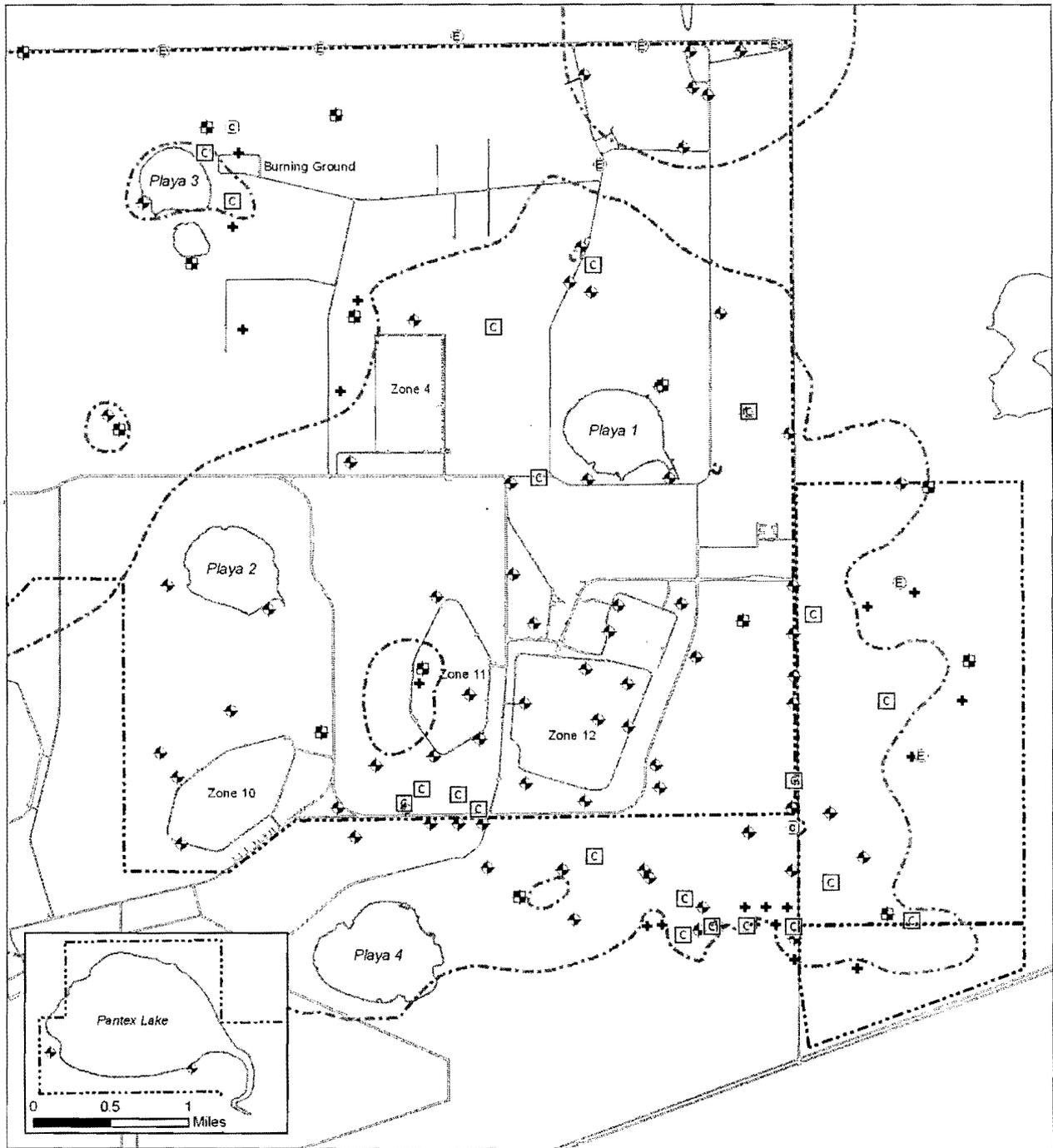


-  Ogallala/Dockum Aquifer Observation Wells
-  Approximate Perched Extent
-  USDOE/NNSA Property

- Indicator Areas**
-  Northwest
  -  Southeast



Ogallala Aquifer Observation Wells and Indicator Areas  
 Attachment A, Sheet 25 of 26



--- Approximate Perched Extent  
 - - - DOE/NNSA Property

**Ogallala/Dockum Aquifer Wells**  
 + Observation  
 ⊕ Point of Compliance  
 ⊕ Point of Exposure

**Perched Wells**  
 ⊕ Active Observation  
 + Dry Observation  
 ⊕ Point of Compliance

0 2,500 5,000 Feet  
 0 500 1,000 Meters



**ATTACHMENT B - WELL DESIGN, CONSTRUCTION, INSTALLATION, CERTIFICATION,  
PLUGGING AND ABANDONMENT PROCEDURES AND SPECIFICATIONS**

## ATTACHMENT B - WELL DESIGN, CONSTRUCTION, INSTALLATION, CERTIFICATION, PLUGGING AND ABANDONMENT PROCEDURES AND SPECIFICATIONS

### Well Design, Construction, Installation, Certification Procedures and Specifications

1. The Permittee shall use well drilling methods that minimize potential adverse effects on the quality of water samples withdrawn from the well, and that minimize or eliminate the introduction of foreign fluids into the borehole.
2. All wells constructed to meet the terms of this Compliance Plan shall be constructed such that the wells can be routinely sampled with a pump, bailer, or alternate sampling device. Piping associated with recovery wells should be fitted with sample ports or an acceptable alternative sampling method to facilitate sampling of the recovered groundwater on a well by well basis.
3. Above the saturated zone the well casing may be two (2)-inch diameter or larger schedule 40 or 80 polyvinyl chloride (PVC) rigid pipe or stainless steel or polytetrafluoroethylene (PTFE or "teflon") or an approved alternate material. The PVC casing must bear the National Sanitation Foundation logo for potable water applications (NSF-pw). Solvent cementing compounds shall not be used to bond joints and all connections shall be flush-threaded. In and below the saturated zone, the well casing shall be stainless steel or PTFE.

The Permittee may use PVC or fiberglass reinforced resin as an alternate well casing material in and below the saturated zone provided that it yields samples for groundwater quality analysis that are unaffected by the well casing material.

4. The Permittee shall replace any well that has deteriorated due to incompatibility of the casing material with the groundwater contaminants or due to any other factors unless otherwise approved by the executive director. Replacement of the damaged well shall be completed within ninety (90) days of the date of the inspection that identified the deterioration.
5. Well casings and screens shall be steam cleaned and/or cleaned by detergent washing prior to installation to remove all oils, greases, and waxes. Well casings and screens made of fluorocarbon resins shall be cleaned by detergent washing.
6. For wells constructed after the date of issuance of this Compliance Plan, the screen length shall not exceed ten (10) feet within a given transmissive zone unless otherwise approved by the executive director. Screen lengths exceeding ten (10) feet may be installed in groundwater recovery or injection wells to optimize the groundwater remediation process in accordance with standard engineering practice.
7. The Permittee shall design and construct the intake portion of a well so as to allow sufficient water flow into the well for sampling purposes and minimize the passage of formation materials into the well during pumping. The intake portion of a well shall consist of commercially manufactured stainless steel or PTFE screen or approved alternate material. The annular space between the screen and the borehole shall be filled with clean siliceous granular material (i.e., filter pack) that has a proper size gradation to provide mechanical retention of the formation sand and silt. The well screen slot size shall be compatible with the filter pack size as determined by sieve analysis data. The filter pack should extend no more than three (3) feet above the well screen. A silt trap, no greater than one (1) foot in length, may be added to the bottom of the well screen to collect any silt that may enter the well. The bottom of the well casing shall be capped with PTFE or stainless steel or approved alternate material.

Groundwater recovery and injection wells shall be designed in accordance with standard engineering practice to ensure adequate well production and accommodate ancillary equipment. Silt traps exceeding one (1) foot may be utilized to accommodate ancillary equipment. Well heads shall be fitted with mechanical wellseals, or equivalent, to prevent entry of surface water or debris.

8. A minimum of two (2) feet of pellet or granular bentonite shall immediately overlie the filter pack in the annular space between the well casing and borehole. Where the saturated zone extends above the filter pack, pellet or granular bentonite shall be used to seal the annulus. The bentonite shall be allowed to settle and hydrate for a sufficient amount of time prior to placement of grout in the annular space. Above the minimum two (2)-foot thick bentonite seal, the annular space shall be sealed with a cement/bentonite grout mixture. The grout shall be placed in the annular space by means of a tremie pipe or pressure grouting methods equivalent to tremie grouting standards.

The cement/bentonite grout mixture or TCEQ approved alternative grout mixture shall fill the annular space to within two (2) feet of the surface. A suitable amount of time shall be allowed for settling to occur. The annular space shall be sealed with concrete, blending into a cement apron at the surface that extends at least two (2) feet from the outer edge of the monitor well for above-ground completions. Alternative annular-space seal material may be proposed with justification and must be approved by the executive director prior to installation.

In cases where flush-to-ground completions are unavoidable, a protective structure such as a utility vault or meter box should be installed around the well casing and the concrete pad design should prevent infiltration of water into the vault. In addition, the Permittee must ensure that 1) the well/cap juncture is watertight; 2) the bond between the cement surface seal and the protective structure is watertight; and 3) the protective structure with a steel lid or manhole cover has a rubber seal or gasket.

9. Water added as a drilling fluid to a well shall contain no bacteriological or chemical constituents that could interfere with the formation or with the chemical constituents being monitored. For groundwater recovery and injection wells, drilling fluids containing freshwater and treatment agents may be utilized in accordance with standard engineering practice to facilitate proper well installation. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.
10. Upon completion of installation of a well, the well must be developed to remove any fluids used during well drilling and to remove fines from the formation to provide a particulate-free discharge to the extent achievable by accepted completion methods and by commercially available well screens. Development shall be accomplished by reversing flow direction, surging the well or by air lift procedures. No fluids other than formation water shall be added during development of a well unless the aquifer to be screened is a low-yielding water-bearing aquifer. In these cases, the water to be added should be chemically analyzed to evaluate its potential impact on in-situ water quality, and to assess the potential for formation damage.

For recovery and injection wells, well development methods may be utilized in accordance with standard engineering practice to remove fines and maximize well efficiency and specific capacity. Addition of freshwater and treatment agents may be utilized during well development or re-development to remove drilling fluids, inorganic scale or bacterial slime. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.

11. Each well shall be secured and/or designed to maintain the integrity of the well borehole and groundwater.
12. The Permittee shall protect the above-ground portion of the well by bumper guards and/or metal outer casing protection when wells are located in traffic areas or outside the secured plant area.
13. Copies of drilling and construction details demonstrating compliance with the items of this provision shall be kept on site. This record shall include the following information:
  - . name/number of well (well designation);
  - . intended use of the well(sampling, recovery, etc.);
  - . date/time of construction;
  - . drilling method and drilling fluid used;
  - . well location (+ 0.5 ft.);
  - . bore hole diameter and well casing diameter;
  - . well depth (+ 0.1 ft.);
  - . drilling and lithologic logs;
  - . depth to first saturated zone;
  - . casing materials;
  - . screen materials and design;
  - . casing and screen joint type;
  - . screen slot size/length;
  - . filter pack material/size;
  - . filter pack volume (how many bags, buckets, etc.);
  - . filter pack placement method;
  - . sealant materials;
  - . sealant volume (how many bags, buckets, etc.);
  - . sealant placement method;
  - . surface seal design/construction;
  - . well development procedure;
  - . type of protective well cap;
  - . ground surface elevation (+ 0.01 ft. MSL);
  - . top of casing elevation (+ 0.01 ft. MSL); and,
  - . detailed drawing of well (include dimensions).
14. The Permittee shall clearly mark and maintain the well number on each well at the site.
15. The Permittee shall measure and keep a record of the elevation of the top of each well casing in feet above mean sea level to the nearest 0.01 foot and permanently mark the measuring point on the well. The Permittee shall compare old and new elevations from previously surveyed wells and determine a frequency of surveying not to exceed ten (10) year intervals.
16. A well's screened interval shall be appropriately designed and installed to meet the well's specific objective (i.e., either DNAPL, LNAPL, both, or other objective of the well). All wells designed to detect, monitor, or recover DNAPL must be drilled to intercept the bottom confining layer of the aquifer. The screened interval to detect DNAPL should extend from the top of the lower confining layer to above the portion of the aquifer saturated with DNAPL. The screened interval for all wells designed to detect, monitor, or recover LNAPL must extend high enough into the vadose zone to provide for fluctuations in the seasonal water table. In addition, the sandpacks for the recovery or

monitoring well's screened interval shall be coarser than surrounding media to ensure the movement of NAPL to the well.

#### Certification, Plugging and Abandonment Procedures

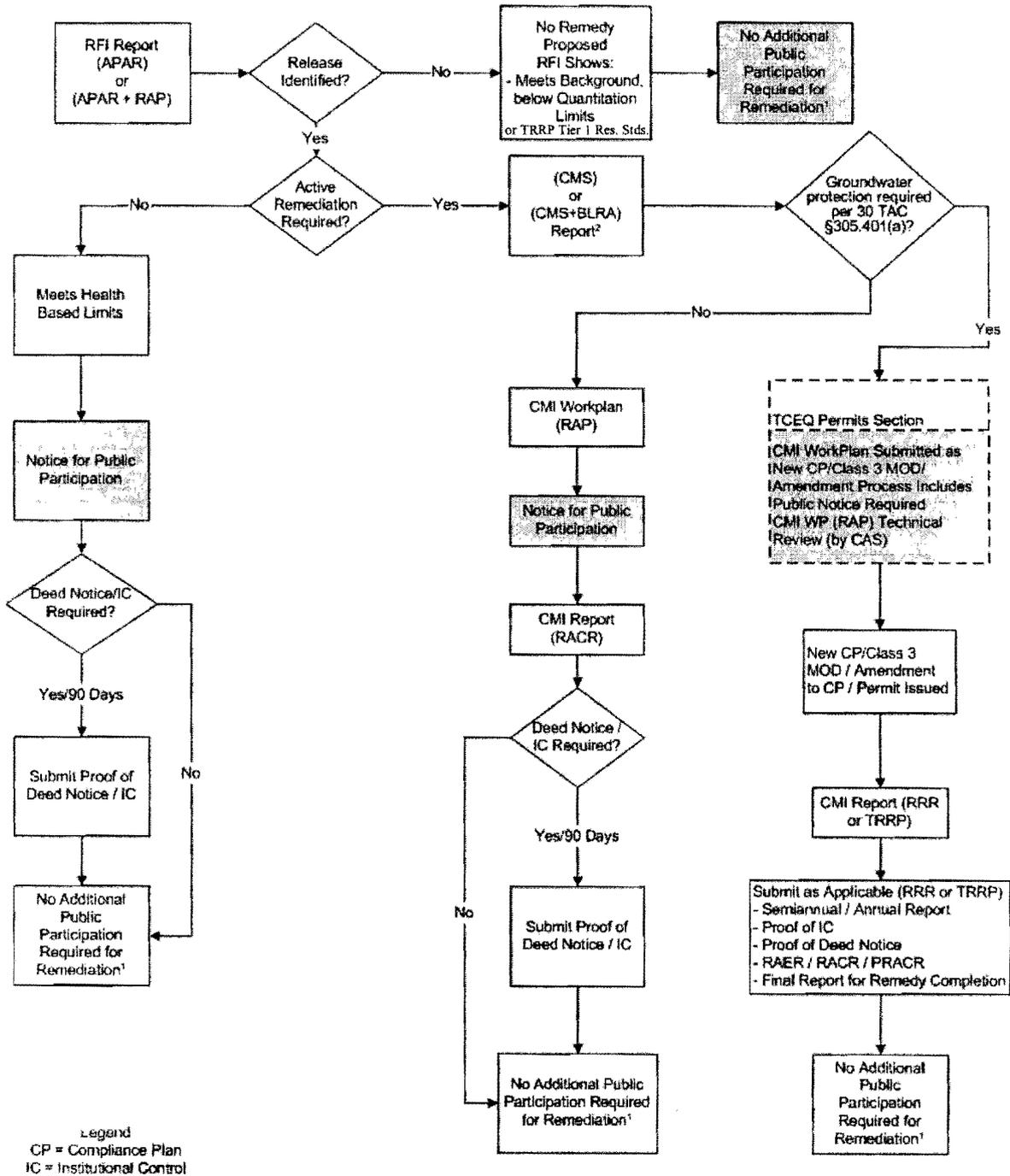
17. Prior to installation of a Point of Compliance (POC), FOA Boundary of Compliance (FBOC), Point of Exposure (POE), Alternate Point of Exposure (APOE) or Background replacement well listed in Table V, the Permittee shall submit to the executive director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any such well to be considered as a replacement well and not as a new well, the well shall have no substantive design changes from the well being replaced as determined by the executive director. The well shall be drilled within fifteen (15) feet of the well being replaced unless an alternate location is authorized by the executive director. The Permittee shall submit a replacement well certification to the executive director in accordance with Table VII and Attachment B, Provision 19.
18. Plugging and abandonment of a Corrective Action System Background, POC, FBOC, POE, and/or APOE wells in Provision II.A shall be subject to the Compliance Plan modification provisions in 30 TAC §305 Subchapter D. Plugging and abandonment of Corrective Action Observation, Corrective Action System and/or Attenuation Monitoring Point wells in Provision II.B, shall commence upon written approval of the executive director. The well shall be plugged and abandoned in accordance with requirements of this Attachment B. The Permittee shall certify proper plugging and abandonment in accordance with Table VII and Attachment B, Provision 19.
19. The Permittee shall complete construction or plugging and abandonment of each well in accordance with the requirements of this Compliance Plan and 16 TAC Chapter 76 and shall certify such proper construction or plugging and abandonment in the first report submitted pursuant to Table VII. following installation or plugging and abandonment. Well completion logs for each newly installed or replaced well shall be included with the report. The certification shall be prepared by a qualified geologist or geotechnical engineer. Each well certification shall be accompanied by a certification report, including an accurate log of the soil boring, which thoroughly describes and depicts the location, elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. A copy of the certification and certification report shall be kept on-site, and a second copy shall be submitted to the executive director. Required certification shall be in the following format, edited as appropriate, and shall specify the Compliance Plan Number as indicated:  
  
"This is to certify that installation (or plugging and abandonment) of the following facility components authorized or required by TCEQ Compliance Plan No. 50284 has been completed, and that construction (or plugging) of said components has been performed in accordance with and in compliance with the design and construction specifications of this Compliance Plan No. 50284:"  
(Add description of facility components with reference to applicable Compliance Plan provisions).
20. Wells may be replaced at any time the Permittee or executive director determines that the well integrity or materials of construction or well placement no longer enable the well to yield samples representative of groundwater quality.
21. The Permittee shall plug soil test borings and wells removed from service after issuance of the Compliance Plan with a cement/bentonite grout mixture so as to prevent the preferential migration of fluids in the area of the borehole. Certification of each plugging shall be reported in accordance with Provision 19 of Attachment B of this Compliance Plan. The plugging of wells shall be in accordance with 16 TAC Chapter 76 dealing with Well Drilling, Completion, Capping and Plugging.

**ATTACHMENT C – PUBLIC PARTICIPATION IN HSWA CORRECTIVE ACTION**

CP Attachment C - Page 1 of 1

Public Participation in HSWA Corrective Action

6/22/2005



1 To Incorporate a Status Change to RFI unit(s) in the Permit or CP Requires Modification and Public Notice through the Permits Section  
 2 As Required by Rule, Permit, or CP