ATTACHMENT F

CONTINGENCY PLAN

UNIVERSITY OF ARIZONA
PAGE TROWBRIDGE RANCH LANDFILL
AZD 980 665 814

PERMIT ATTACHMENT F (APPLICATION SECTION 5)

The following is a list of changes made to the application document for the final Arizona Hazardous Waste Management Act Permit:

Updated “Appendix E” to “Appendix F-1”.
Updated “Appendix B” to “Appendix G-2”.
Updated “Appendix D” to “Appendix B-1”.
Updated “Appendix F” to “Appendix F-2”.

ATTACHMENT F (Application SECTION 5)

CONTINGENCY PLAN

A Post-Closure Contingency Plan is included as Appendix F-1. The information contained in this plan provides the actions to be taken in the event of an emergency at Page Ranch Landfill. Non-emergency procedures related to monitoring, maintenance, and non-emergency first aid, can be found in Appendices G-2, B-1 and F-2, respectively.

APPENDIX F-1

POST-CLOSURE CONTINGENCY PLAN

UNIVERSITY OF ARIZONA
PAGE TROWBRIDGE RANCH LANDFILL
AZD 980 665 814

PERMIT ATTACHMENT F, APPENDIX F-1 (APPLICATION APPENDIX E)

The following is a list of changes made to the application document for the final Arizona Hazardous Waste Management Act Permit:

Page 1, Section 1: Updated "Appendix B" to "Appendix G-2".
Page 1, Section 1: Updated "Appendix D" to "Appendix B-1".
Page 1, Section 1: Updated "Appendix F" to "Appendix F-2".
UA submitted revised Contingency Plan (application Attachment E) on June 19, 2012, which:

1) Separated emergency contacts into separate exhibit;
2) Added the Arizona Radiation Regulatory Agency to receive reports and be contacted if a radiation release occurs, and be included on the distribution list for Plan updates;
3) Removed the yellow highlights from the radiation portion of Exhibit 6 (Exhibit 5 in Draft Permit);
4) Added a brief outline of the emergency equipment capabilities in Exhibit 6 (Exhibit 5 in Draft Permit); and
5) Added the Arizona Radiation Regulatory Agency to Exhibit 7.

APPENDIX F-1 (Application APPENDIX E)

POST-CLOSURE CONTINGENCY PLAN

POST-CLOSURE CONTINGENCY PLAN
FOR
PAGE-TROWBRIDGE RANCH LANDFILL

North 32° 36' 26.87"
West 110° 53' 45.83"
(Soil Vapor Extraction Array)

University of Arizona
Risk Management Services
Township 9 South, Range 14 East, Gila and Salt River
Base and Meridian, Southern Half of Section 27 and Northern Half of Section 34
Pinal County, Arizona
EPA ID NO. AZD980665814

REVISED JUNE 2012

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1 CONTINGENCY PLAN OVERVIEW/FACILITY DESCRIPTION

This plan describes the actions to be taken by personnel of the University of Arizona (UA), Risk Management Services Department (RMS), in the event of an emergency at the Page-Trowbridge Ranch Landfill, hereafter referred to as PTRL, during the Post-Closure period.

PTRL is governed by a Post Closure Permit, issued by the Arizona Department of Environmental Quality (ADEQ). This Plan is a required component of the Permit. Non-emergency related procedures are described in other sections of the Permit document. Groundwater and soil vapor monitoring contingency procedures can be found in Post Closure Period Expanded Groundwater and Soil Vapor Detection Monitoring Plan (Appendix G-2). Inspection and maintenance contingency procedures can be found in the Post Closure Inspection and Maintenance Plan (Appendix B-1). Lastly, non-emergency medical needs are addressed in the Health and Safety Plan (Appendix F-2).

1.A Facility Description

Page Ranch is a one square mile parcel of undeveloped property owned by the UA. The property is located in the Oracle/Oracle Junction area of Pinal County, Arizona, north of State Highway 77, approximately seven miles west of Oracle and 30 miles north of Tucson. A site location map is shown as Exhibit 1. Page Ranch is located in Township 9 South Range 14 East, Gila and Salt River Base and Meridian, and includes the southern half of Section 27 and the northern half of Section 34.

UA used PTRL from 1962 to February 1986 for disposal of low-level radioactive and chemical wastes generated by teaching and research laboratories, agricultural research, and maintenance operations at the UA. Limited amounts of laboratory waste were also accepted at PTRL from Northern Arizona University, Arizona State University, and Veteran's Hospital in Tucson.

The PTRL site is located at the southwest corner of the Page Ranch property. The landfill area occupies a total of 3.25 acres and consists of two units: Unit A (northern unit, 200 feet by 200 feet) and Unit B (southern unit, 200 feet wide by 500 feet long). In both units, wastes were placed into individual cells (pits) that were approximately 10 feet deep. Disposal operations began at Unit B, which from the early 1960s received and maintained approval from the Arizona Atomic Energy Commission for disposal of low-level radioactive laboratory wastes.

Disposal of chemical waste into Unit B started in the late 1960s. Chemical waste disposal cells at Unit B were first utilized as open neutralization and burn pits; subsequently, they were used for direct burial of chemicals in one- and five-gallon containers and 55-gallon drums packed with absorbent material (lab packs).

Unit A was placed in operation in 1982 for disposal of chemical wastes only. It was designed and subsequently operated in accordance with the applicable RCRA standards for landfills. The disposal cells were individually double-lined with a chemically resistant synthetic liner. Wastes were received in sealed, 55-gallon drums (DOT 17C). These drums were placed into the cells in single layers, sealed with the plastic liner, and covered with soil.

Waste volumes buried at PTRL total approximately 280 tons of hazardous waste and 312 tons of low-level radioactive waste, including mixed wastes (RCRA + radioactive). Site A (north) was used only for lab-packed hazardous wastes. Site B (south) was used primarily for low-level radioactive waste burial, with some areas also used for RCRA hazardous wastes. Hazardous

chemical wastes buried at PTRL consist primarily of spent organic solvents, ignitables, acids, bases, heavy metals, pesticides, and photographic compounds. Low level radioactive materials buried at PTRL include solvent-based scintillation cocktail solutions, contaminated laboratory materials, and animal carcasses and byproducts.

PTRL closure construction was completed in August 1997. Each disposal unit is separately capped with an earthen final cover that supports native grass vegetation. Storm water is controlled by a system of surface channels and culverts. Both landfill units, all monitoring wells, and the soil vapor extraction system are enclosed by a perimeter security fence. Site access is provided via an unpaved road connecting from the west side of Willow Springs Ranch Road to the Page Ranch east boundary gate. Beyond this gate, the road traverses the Page Ranch property to the PTRL site fence, which has gates on the southeast and northwest corners. These gates are kept locked when UA personnel or their representatives are not present at the site. Warning signs are placed on the fence around the facility. Five groundwater monitoring wells have been installed around the facility (MW-1 through MW-5). Wells MW-2, MW-3, MW-4 and MW-5 are used for groundwater sampling during the post-closure period. Soil vapor monitoring and extraction wells, powered by a solar panel array are located between units A and B of PTRL. The facility layout is shown in Exhibit 2.

2. EMERGENCY COORDINATORS

If an emergency situation develops at the facility, the discoverer or responder will contact the dispatcher at the University of Arizona Police Department (UAPD) at 520-621-8273, or the Tucson Area Agricultural Center's Resident Director. He/she will then contact UAPD for Emergency Coordinator notification. UAPD will immediately contact Emergency Coordinators listed in Exhibit 3. The primary Emergency Coordinator is to be contacted first; if not available, the secondary Emergency Coordinator will be called (in the order listed), until one of the Emergency Coordinators is reached. The first of these individuals contacted will become the Emergency Coordinator.

UAPD Dispatch is manned 24 hours per day, seven days a week. At least one Emergency Coordinator is available by cellular telephone at all times, and UAPD has the telephone numbers of all Emergency Coordinators. Emergency Coordinators can also be contacted directly at the telephone numbers listed in Exhibit 3 or through UAPD. Emergency Coordinators designated in Exhibit 3 are UA personnel that are thoroughly familiar with PTRL location and layout, characteristics of the disposed wastes and location of the facility records, and have been trained to carry out duties outlined in this Contingency Plan.

The decision to implement the Contingency Plan is based on the Implementation Criteria listed in Section 3. of this document. It is the duty of the Emergency Coordinator to evaluate the situation, and determine if the Contingency Plan is to be implemented and to direct and coordinate all activities undertaken if the Plan is implemented. The Emergency Coordinator is authorized to commit the resources of the University of Arizona as needed, in implementing the Contingency Plan as indicated in Exhibit 4. The specific types of incidents, which require implementation of the Contingency Plan, are listed on Page 3 of this document.

3. CRITERIA FOR CONTINGENCY PLAN IMPLEMENTATION

The Contingency Plan will be implemented in the following situations:

1. Fire and/or Explosion

    a. A fire at the facility has or could cause the release of significant amounts of toxic fumes;

    b. A fire has originated at the site has spread or is likely to spread to adjacent properties;

    c. A subsurface fire or explosion within the landfill;

    d. An uncontrolled fire within one mile of the landfill, which has or is likely to spread to the facility;

2. Flood or Significant Storm Event:

    a. There is a 100-year storm at the facility or the surrounding area

4. EMERGENCY RESPONSE PROCEDURES

4.A Local Notification

Due to the remote location of the facility in relation to the UA campus located in Tucson and the fact the facility is unoccupied, the Tucson Area Agricultural Centers' Resident Director has been included as an emergency contact for the site. He/she will contact UAPD to initiate notification of an Emergency Coordinator. The person that becomes aware of an emergency shall immediately notify the Resident Director or UAPD. The individual making the call should provide to UAPD any initial information available. Personnel that are familiar with the area are to remove themselves from the impacted area, but must remain on site until the Emergency Coordinator comes to the site and clears them for departure from the scene. The Emergency Coordinator will evaluate the initial situation report and determine the level of response required, call emergency responders directly or through UAPD (if additional help is required), notify appropriate agencies listed on Pages 7 and 8, and prepare an initial report on the situation.

4.B Evacuation Plan

If the situation appears uncontrollable and poses a direct threat to human life, a verbal warning will be given to all personnel to secure their emergency equipment and immediately evacuate the area. If the chances for an explosion are high, the entire area will be evacuated to a safe distance downwind of the facility. The evacuation safe distance will be developed by the Emergency Coordinator in consultation with the responding fire department authority. The Emergency Coordinator will alert all personnel when all danger has passed, as determined by the responding fire department authority.

4.C Assessment

The Emergency Coordinator must assess hazards to human health or the environment that have resulted or might result from the emergency situation. This assessment will consider the following information:

    a. Location of the release or potential release;

b. Specific hazards of the released or potentially released materials;

c. An estimate of the release quantity and rate;

d. The direction of the release;

e. Likelihood for additional releases;

f. Personnel in contact with the released chemicals;

g. possible injuries or sickness;

h. Estimate of area under influence of release;

i. Release containment and clean-up procedures.

This assessment will provide the Emergency Coordinator with information to decide if the Contingency Plan is to be implemented. The Emergency Coordinator must also assess the degree of remedial responses that will be required to handle the incident. If the incident is beyond the capabilities of the UA Emergency Response Team, the Emergency Coordinator is responsible for determining the degree of assistance required and notifying other emergency responders regarding the assistance needed, as discussed below.

4.D External Notification

If the Emergency Coordinator determines that the facility either has had or may have an incident that requires implementation of this plan, the following actions must be taken immediately:

1. Direct UAPD Dispatch to notify the Pinal County Sheriff's Department and advise them of the situation. On site response will be optional unless requested by the Emergency Coordinator.

2. Direct UAPD Dispatch to notify the Golder Ranch Fire District and advise them of the situation. On site response will be optional unless requested by the Emergency Coordinator.

3. In consultation with emergency agencies responding to the incident, determine the need and extent of surrounding area evacuation.

4. Gather the following information necessary to complete the Hazardous Material Incident-Initial Response Report (Exhibit 5):

    a. Name and telephone number of incident reporter;

    b. Facility name and location;

    c. Time and type of incident, and the duration of the event;

    d. Type and quantity of chemicals involved, if known;

    e. The medium or media into which the release has occurred;

f. Possible hazards to human health and the environment;

g. Advice regarding medical attention for exposed individuals, if possible;

h. Extent of injuries, if any;

i. Proper precautions to take, including evacuation.

The above information shall be collected, as quickly as practicable, but appropriate response actions shall not be delayed for this purpose.

5. As a part of notification procedures, as soon as practicable after becoming sufficiently knowledgeable about the incident, the Emergency Coordinator will contact the External Notification Agencies listed in Exhibit 3 to provide the Initial Response Report information described above.

6. If the Emergency Coordinator determines that outside assistance is required to implement the appropriate remedial response and clean up, he will contact the following response firm which is contracted to provide emergency assistance to state agencies:

   Southwest Hazard Control 800-622-3607 (24 Hr Answering Service)

4.E. IDENTIFICATION OF HAZARDOUS MATERIALS

The following information regarding the hazardous materials contained within the landfill is located at the UA Risk Management Services Department:

- A representative list of chemicals disposed at Page Ranch;
- Manifests;
- Material Safety Data Sheets (MSDS) for various types of chemicals disposed at the landfill.

Risk Management maintains a subscription with ExPub for five users to allow 24/7access to a number of hazardous chemical databases to guide proper spill response as listed below. The URL is http://www.expub.com/Default.aspx?AspxAutoDetectCookieSupport=1.

ExPub LOGIN: UAZ05 PASSWORD: Jeff

ACCESS IS FOR UA RISK MANAGEMENT PERSONNEL ONLY! UNAUTHORIZED ACCESS TO THIS WEBSITE IS A LICENSE VIOLATION AND SUBJECT TO ENFORCEMENT.

ExPub provides access to millions of documents from over 100 sources through a time-saving interface.

Material Safety Data Sheets contain pertinent hazard information for the chemicals which may be stored at the site including:

- Identification of chemical components in each wastestream by name, including synonyms;
- Identification of waste's hazardous characteristics (e.g., toxicity, reactivity, and ignitability);
- Important chemical and physical properties for which data are available, such as vapor pressure, pH, and solubility in water;
- Fire control procedures (e.g., water or chemical foam);
- Appropriate procedures to counteract human exposure (e.g., thorough washing with soap and water in the event of dermal contact).

Extensive MSDS resources and emergency medical guidance are also available 24 hours/day through the Arizona Poison & Drug Information Center, housed at the UA Arizona Health Sciences Center. The phone number is 800-222-1222.

4.F CONTROL PROCEDURES

The initial response to any emergency will be to protect human health and safety, and then the environment. Secondary response to the emergency will be identification, containment, treatment, and disposal assessment.

If fire or explosion has occurred or appears imminent, any activity within the site fence will be stopped immediately. The Emergency Coordinator will make an assessment whether the fire is controllable with the existing portable fire extinguishers and materials at hand. If the Emergency Coordinator determines that outside emergency response help is needed, the Emergency Coordinator will direct UAPD to contact the Golder Ranch Fire District and the Pinal County Sheriff's Department for onsite assistance.

Outside response agencies will contact the site Emergency Coordinator upon arrival at PTRL to discuss appropriate response to the incident, the nature of the materials involved, and safety and health considerations for response.

If an explosion has occurred, it must be determined immediately if any personnel require medical attention. After the medical attention has been addressed, it must be determined if there is any potential for further reactions or explosions. The safety of personnel at the scene must be addressed before any action is taken. All releases of materials will considered initially as extremely hazardous, until the released materials are indentified, if possible. The Emergency Coordinator will use all necessary precautions, such as:

a. Use protective equipment;

b. Secure area from unauthorized access, and control all access;

c. Approach the release from upwind, if possible;

d. Avoid any direct or indirect contact with the material;

e. Remove all possible ignition sources from the immediate area;

f. Do not allow smoking in the area;

g. Do not approach if any landfill fuming/smoking is visible.

If the situation appears uncontrollable and poses a direct threat to human life, a verbal warning will be given to all personnel fighting the fire to secure their emergency equipment and immediately evacuate the area. The Emergency Coordinator will consult with the on-scene fire department commander concerning the need for additional evacuation beyond the facility boundaries. This decision will be based on a hazard assessment of the potential for the released materials to migrate beyond the facility boundary in concentrations sufficient to represent a health threat.

The Emergency Coordinator in consultation with the fire department on-scene commander will notify personnel in the area when the immediate hazard has passed for a safe return to the site.

4.G PREVENTION OF REOCCURRENCE OR SPREAD OF FIRES, EXPLOSIONS OR RELEASES

Specific actions to be taken during an incident to prevent reoccurrence or spread of fires, explosions, or releases within the facility boundaries include the following, as applicable:

a. Extinguishing the fire;

b. Collecting, containing, and properly disposing of any released wastes and runoff, if fire was caused by an explosion or waste incompatibility;

c. Removing all ignition sources from the area, if ignitable wastes are involved;

d. Removing surrounding materials that could result in spreading of the fire to other parts of the site or to off-site areas.

5.0 POST-INCIDENT PROCEDURES

As soon as practical, but no later than 48 hours after an incident is concluded, the process to implement the following steps will be initiated:

a. Notification of the Arizona Department of Administration, Risk Management Division of an environmental damage incident at PTRL to establish a property loss claim.

b. Repair of the landfill cap to its original integrity and Closure Plan specifications.

c. Reseeding of the repaired cap surface in accordance with the original Closure Plan specifications.

d. Repair of any damaged site equipment, security fencing, drainage structures, etc.

5.A Storage and Treatment of Released Materials

The materials collected during the fire fighting, cleanup and/or decontamination operations will be containerized, handled, stored, treated, and/or disposed of, as applicable. This will apply to any disposable equipment used. Immediately after the response to an emergency event, the Emergency Coordinator will make arrangements for proper treatment, storage, and disposing of recovered waste, contaminated soil, contaminated runoff, contaminated surface water, and/or

any other contaminated materials resulting from the incident. After initial containerization and storage arrangements have been made, an appropriate decontamination procedure will be specified which will remove any remaining residue in accordance with the cleanup requirements. This procedure will include sampling and analysis to demonstrate the adequacy of cleanup.

Any analyses performed as part of this procedure will include pH, flashpoint, the appropriate EPA methods for volatile and semi-volatile organics, pesticides, phenols, the Toxicity Characteristics Leaching Procedures (TCLP), radioactivity, and /or additional parameters selected based on the conditions specific to the incident.

5.B Emergency Equipment

UA Risk Management Services maintains a limited amount of equipment and supplies that are designated for emergency responses to hazardous materials incidents. Individually assigned gear bags of personal protective equipment are stored in Emergency Coordinator and Emergency Response Team member offices. A listing of supplies and emergency equipment is included in Exhibit 6.

5.C Post-Emergency Equipment Maintenance

All equipment used in the emergency will be decontaminated for future use or discarded in accordance with the appropriate regulations. Any piece of response equipment for which there is not a duplicate piece available will be cleaned or replaced within 48 hours after the emergency event is concluded.

5.D Required Written Reports

Within 15 days after any emergency event that requires implementation of this Contingency Plan, a written report must be submitted to the EPA Regional Administrator and the Arizona Department of Environmental Quality. If a radiation release is involved a copy of the report will be submitted to the Arizona Radiation Regulatory Authority. This written report must contain all the information that was incorporated into the Hazardous Materials-Incident Report form. Additionally, it must include the following descriptive information about the incident:

1. Specific actions taken to respond to and contain the release;

2. Any known or anticipated acute or chronic health risk associated with the release;

3. Advice regarding the medical attention necessary for exposed individuals, if appropriate;

4. Measures which have been or will be taken at the facility to avoid similar releases in the future.

Within 35 days after the incident, a similar written report must be submitted to the Pinal County Local Emergency Planning Committee and the Arizona Emergency Response Commission. Mailing addresses are listed in Exhibit 7.

If new pertinent and/or significant information about the incident becomes available after the submission of written reports, a written addendum report shall be forwarded to the same agencies within seven calendar days.

If the nature of the incident represents a potential liability for civil, environmental, property, or other damages, immediate written notification must also be provided to the Arizona Department of Administration, Risk Management Division. (address also shown in Exhibit 7)

6.0 CONTINGENCY PLAN UPDATE, DISTRIBUTION AND CONTROL

6.A Update

This Contingency Plan will be updated as required to reflect changes in procedures, Emergency Coordinator information, etc. Each page of this Plan incorporates a document footer with the month and year of the current revision. When the plan is updated, the cover page and footer will be updated to reflect the current revision date in the text pages of the document. If an Exhibit to the Plan requires an update, the individual Exhibit will be marked with a revised date.

6.B DISTRIBUTION

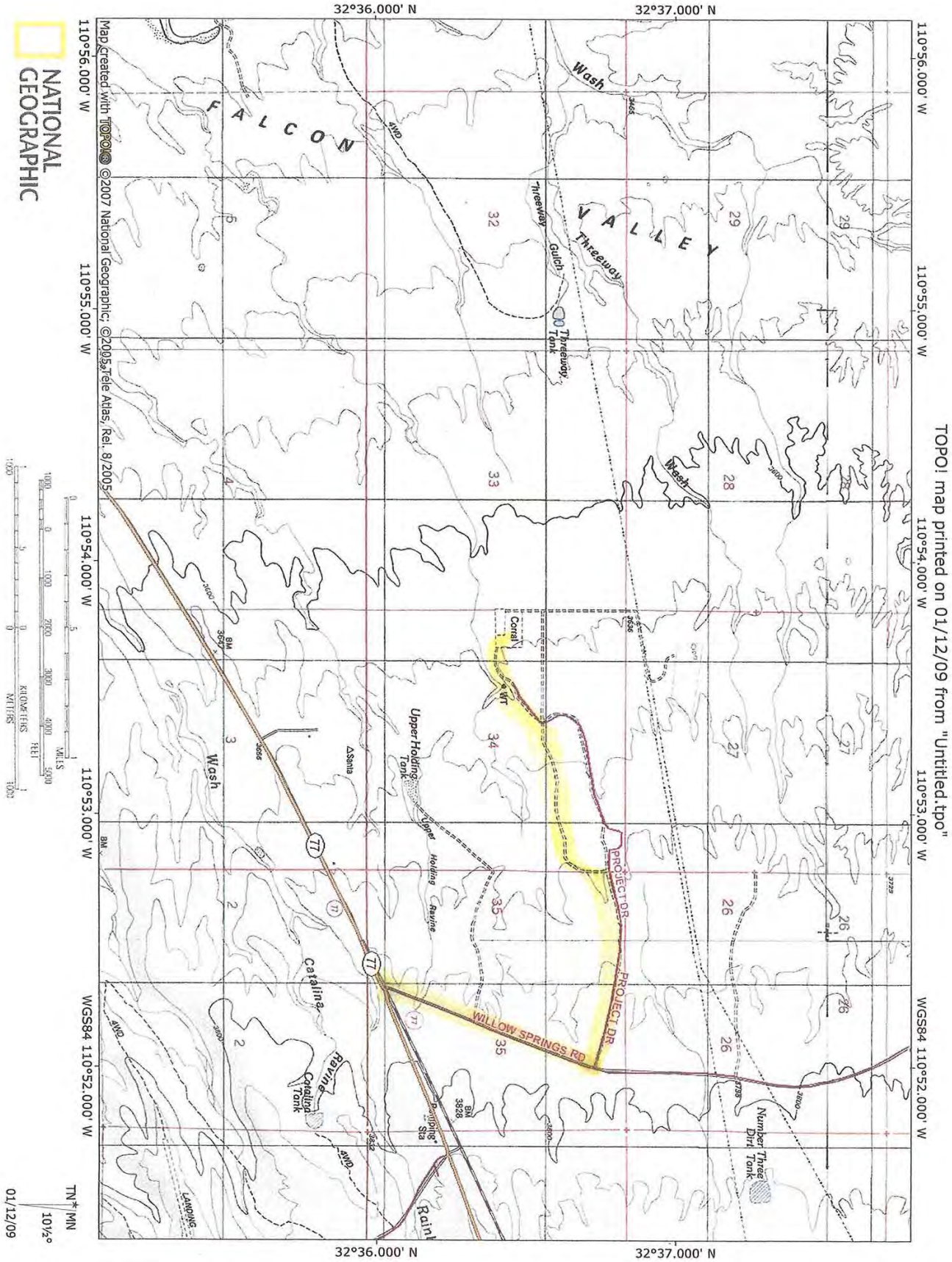
Each time the Plan is updated or revised, a complete new copy of the Plan is distributed to each entity identified below. The Plan is distributed via email as a PDF file, and made available in printed hardcopy upon request.

- U of A Police Department
- U of A Risk Management Services
- U of A Radiation Control Office
- U of A Tucson Area Agriculture Centers Resident Director
- Golder Ranch Fire District
- Oracle Fire Department
- Pinal County Local Emergency Planning Committee
- Pinal County Sheriff's Department
- Pinal County Risk Management Office
- Arizona Emergency Response Commission
- Arizona Radiation Regulatory Agency
- Southwest Hazard Control

Copies of the cover letters sent to each agencies are included in this document as Exhibit 8.

EXHIBIT 1

SITE LOCATION MAP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110°55.000' W
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110°53.000' W
WGS84 110°52.000' W
FALCON
VALLEY
Threeway Wash
Threeway Gulch
Threeway Tank
Corral
Upper Holding Tank
Upper Holding Ravine
Catalina Wash
Catalina Tank
Ravin
Rain
Number Three Dirt Tank
PROJECT DR
WILLOW SPRINGS RD
Map created with TOPO!® ©2007 National Geographic; ©2005 Tele Atlas, Rel. 8/2005
NATIONAL GEOGRAPHIC
MILES
KILOMETERS
FEET
METERS
TN MN
10½°
01/12/09

EXHIBIT 2

FACILITY LAYOUT MAP

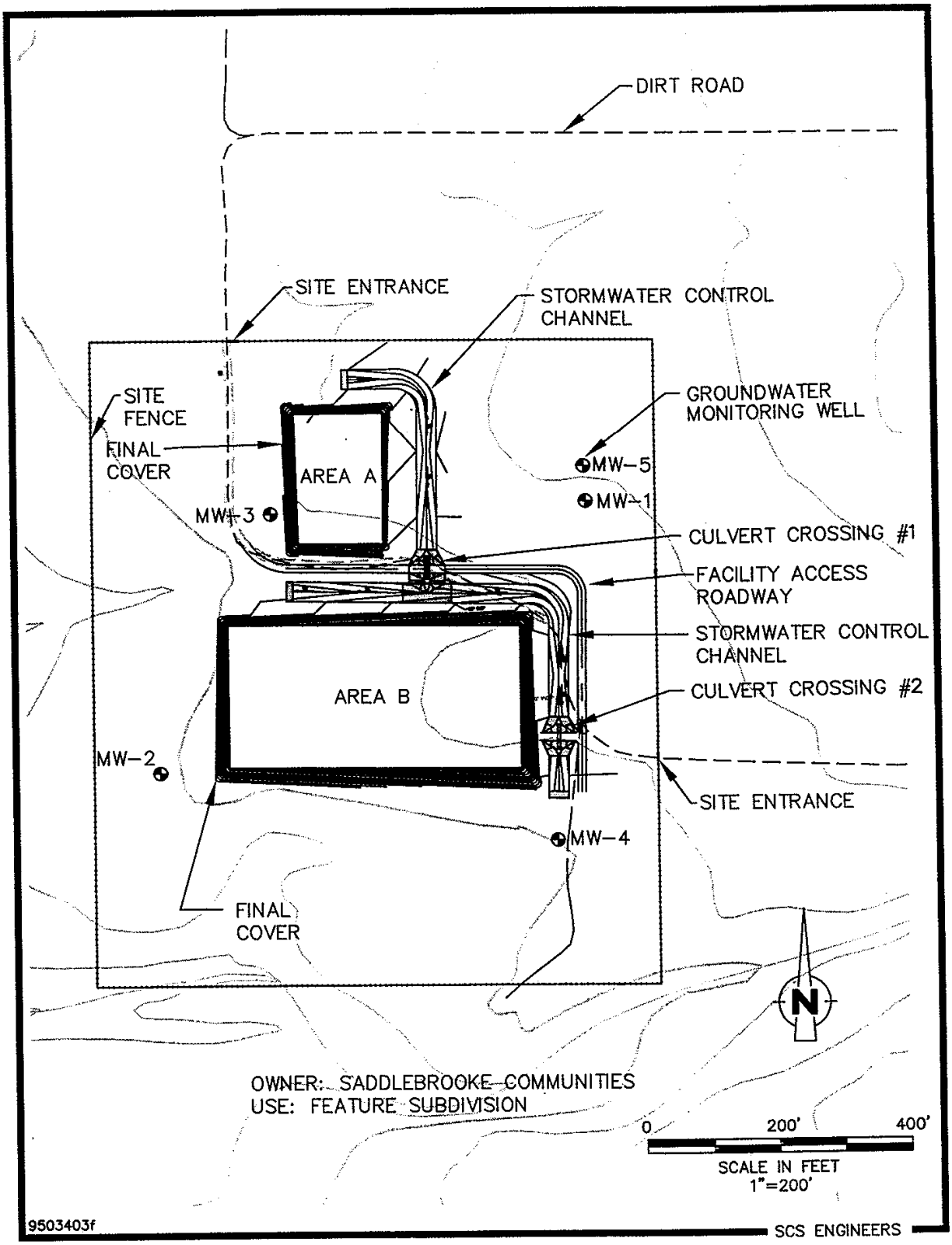

FIGURE L-2. SITE PLAN

EXHIBIT 3

EMERGENCY COORDINATORS

EMERGENCY COORDINATORS (This page last updated: 6/18/2012)

The Emergency Coordinators designated below are University of Arizona personnel who are directly involved in the management and handling of hazardous waste and are trained in appropriate response measures. The Emergency Coordinators can be contacted directly at the phone numbers listed below or through the University of Arizona Police Department. An Emergency Coordinator is available by cellular phone 24 hours a day.

UA RISK MANAGEMENT SERVICES

PRIMARY EMERGENCY COORDINATOR	
Steven C. Holland Assistant VP for Risk Management, UA Risk Management Services Dept.	Home Phone: (520) 749-9287 Work Phone: (520) 621-1790 Cellular Phone: (520) 349-4273
Home Address: 12561 E. Sonoran Ridge Drive, Tucson, AZ 85749	

SECONDARY EMERGENCY COORDINATOR (1)	
Herbert N. Wagner Director – Occupational, Environmental Health and Safety UA Risk Management Services Dept.	Home Phone: (520) 881-5448 Work Phone: (520) 621-7691 Cellular Phone: (520) 349-0984
Home Address: 2918 E. Croyden, Tucson, AZ 85716	

SECONDARY EMERGENCY COORDINATOR (2)	
Lloyd M. Wundrock Environmental Safety Officer UA Risk Management Services Dept.	Home Phone: (520) 240-9802 Work Phone: (520) 621-1590 Cellular Phone: (520) 349-1001
Home Address: 5307 W. Wood Owl Drive, Tucson, AZ 85742	

SECONDARY EMERGENCY COORDINATOR (3)	
Jeffrey G. Christensen Hazardous Waste Supervisor UA Risk Management Services Dept.	Home Phone: (520) 408-4895 Work Phone: (520) 621-5861 Cellular Phone: (520) 349-2187
Home Address: 1300 W. Roller Coaster Road, Tucson, AZ 85704	

COLLEGE OF AGRICULTURE: **Stephen Husman, Resident Agriculture Director**

(520) 621-3146 Work, (520) 429-2760 Cell

UA POLICE DEPT: 9-1-1 for campus phones, 621-8273 for non-campus phones (24/7)

EXTERNAL AGENCY EMERGENCY NOTIFICATION
Arizona Department of Environmental Quality – Emergency Response Unit 602-771-2330 OR 800-234-5677, ext. 2330, in Arizona, 24 hour
Arizona Department of Public Safety – 9-1-1 or 602-223-2163 (not a public number)
National Spill Response Center – 800-424-8802
Arizona Radiation Regulatory Agency – 602-255-4845

EXHIBIT 4

AUTHORITY FOR EMERGENCY COORDINATORS

TO COMMIT RESOURCES

THE UNIVERSITY OF ARIZONA.

Office of the Senior Vice President
for Business Affairs

Administration, Room 605
P.O. Box 210066
Tucson, AZ, 85721-0066
Tel: (520) 621-5977
Fax: (520) 621-7714

March 24, 2011

Arizona Department of Environmental Quality
Office of Waste Programs
1110 West Washington Street
Phoenix, AZ 85007

To Whom It May Concern:

In accordance with the requirements of 40CFR §264.55, the University of Arizona has identified a primary emergency coordinator and three secondary emergency coordinators (listed below). These individuals are authorized to implement the contingency plan for emergency events associated with the University's Hazardous Waste Management program.

Further, in accordance with 40CFR §264.55, the emergency coordinators listed below are authorized to direct and commit, if necessary, all available resources to implement the contingency plan.

Primary Emergency Coordinator:
Steven C. Holland, Assistant Vice President for Risk Management and Safety

Secondary Emergency Coordinators:
Herbert Wagner, Associate Director of Risk Management and Safety
Lloyd Wundrock, Environmental Safety Officer
Jeff Christensen, Hazardous Waste Program Supervisor

Sincerely,

Milton M. Castillo, CPA
Sr. Vice President for Business Affairs and Chief Financial Officer

MMC/dk

cc: Brian Seastone, UAPD, Emergency Preparedness Manager
Melissa Vito, Chair, Campus Emergency Response Team

Arizona's First University – Since 1885.

EXHIBIT 5

HAZARDOUS MATERIAL INCIDENT-INITIAL RESPONSE REPORT

HAZARDOUS MATERIALS INCIDENT

INITIAL RESPONSE REPORT

Responder's Name and Title:_____

Incident Location: Building Name and Room No.:_____

Street Address if Available:_____

Time of Event:_____ Estimated Duration:_____

Type of Incident:_____

Chemicals Released:_____

Estimated Volume of Release:_____ RQ:_____

Type of Container Involved:_____

Media Into Which Substance Has Been Released:_____

Known Physical Hazards:_____

Known Acute Health Hazards:_____

Known Chronic Health Hazards:_____

Known Injuries:_____

Recommended Precautions:_____

EXHIBIT 6

EMERGENCY EQUIPMENT INVENTORY

EMERGENCY EQUIPMENT INVENTORY

Emergency response equipment is stored at the Hazardous Waste Management Facility (HWMF) at the north end of the AHSC Central Plant and the Risk Management Services main office in the University Services Annex (USA) building located at Bldg 300B 220 W 6th St. 2nd Floor. The items below are listed by their normal storage location.

Stored at the Risk Management Offices and the HWMF

A. Personal Protective Equipment

Emergency Response Gear Bags

Distribution:	Assistant VP for Risk Management (1)
	Director/Safety Officers (3)
	Health/Safety Coordinators (2)
	Hazardous Waste Specialists (3)
	Total = 9, stored in individual offices
Bag Contents:	Tyvek suit (polyethylene-laminated type)
	Grey coveralls and/or regular Tyvek suit
	Neoprene overboots
	Leather gloves
	Latex and/or nitrile gloves (2-3 pair)
	Neoprene oil/acid resistant gloves
	Silvershield gloves and sleeves (2 pair)
	Silvershield apron
	Full-face respirator
	(P100/-OV/AG/AMcombination cartridges)
	Mercury cartridges
	N95 disposable respirator
	Chemical splash goggles
	Safety glasses (clear or smoke)
	Clean-room booties

Mini-flashlight

Duct tape

pH indicator paper

Other Available Personal Protective Equipment		Location
Respirators		
4 – MSA Self-Contained Breathing Apparatus		HWMF Room 121
1– 3M BreathEasy 12 hooded powered air purifying respirator		USA Room B213
1 -- 3M formaldehyde & acids (white)	(set of 3)	USA Room B213
2 -- 3M P100 cartridges (pink)	(set of 3)	USA Room B213, B200N
Full-face air purifying respirators		USA Room B221
6 - MSA Ultratwin 3 small 2 med 1 lrg		USA Room B221
Half-face air purifying respirators		USA Room B221

13-- MSA Advantage 420 4 sm, 4 med, 5 lrg

11-- MSA Comfo Classic: 2 sm, 8 med, 1 lrg

6 -- MSA Comfo Elite: 2 sm, 1 med, 3 lrg

20 -- 3M 7500: 5 sm 7501, 7 med 7502, 8 lrg 7503

Cartridges (pairs)		USA Room B200N hall cabinet
		USA Room B213 storage
12 - MSA Comfo	P100//OV/AG/AM combo (pink & lime green)	
5 - MSA Comfo	AG/OV/AM (lime green)	
10 - MSA Comfo	P100 cartridges (pink)	
15 – MSA Comfo	mercury/chlorine	
3 --MSA Advantage	P100 (pink)	
3 -- MSA Advantage	OV/AG/AM (lime green)	
3 - MSA Advantage	P100/OV/AG/AM (pink & lime green)	
9 – MSA Advantage	N95 flexifilter	

2 – 3M for 7500s	P100/OV/AG/AM (pink & lime green)
6 – 3M for 7500s	OV/AG/AM (lime green)
18 – 3M for 7500s	P100 (pink)

<u>N95 disposable respirators (particulates)</u> USA Room B213, B221, B200N

Flat fold:	3M 9210	140 single size
	3M 9211	30 (single size with exhalation valve)
	3M 1870	580 single size, biofluid resistant
	3m 1870	40 (single size biofluid resistant)
Cup Style:	3m 1860	140 (regular size, biofluid resistant)
	3m 1860s	80 (small biofluid resistant)

Eye Protection USA Room B213, B221

6 - Uvex Stealth Goggles

6 - Uvex Futura Goggles

3 – Uvex Goggle – over the glasse

9 – Uvex safety glasses

Body Protection

20 – tyvek suits	USA Room B213
4 –Silvershield aprons	USA Room B213
1 – Traffic safety vest	USA Room B213
Hand Protection	USA Room B213
11 – Kevlar/leather gloves	USA Room B213
20 – Silvershield gloves size 8, 10	USA Room B213
6 boxes – Nitrile disposable, size XL, Med	USA Room B213, B223

*Items may be on loan to various campus locations. See sign out sheet at USA Room B227A Risk Management Reception to locate.

B. Spill Response Equipment	**Location**
Hazorb Spill Pillows – 1 case	HWMF Room 121
Hazsorb Spill Pillows – 2	USA Room B213
Hazorb Spill Booms – 1 case	HWMF Room 121
Spill Pillows for HF – 1 case	HWMF Room 121
Vermiculite, medium grade – 5 x 14 lb. bags	HWMF Room 121
Sodium Bicarbonate – 4 x 25 lbs.	HWMF Room 121
Clear plastic bags, 4 mil – 1 case	HWMF Room 121
Garden Hoses – 2	HWMF Room 121
Push Broom – 2	HWMF Room 121
Non-sparking plastic dustpans – 1	HWMF Room 121
Polyethylene Sheeting, 6 mil – 1 roll	HWMF Room 121
85 gallon overpack drum – 1	HWMF Room 121
Drum de-header tool – 2	HWMF Room 121
Non-sparking bung wrench – 1	HWMF Room 121
Explosion proof liquid transfer pump – 1	HWMF Room 106B
Liquid transfer pump – 1	HWMF Room 106B
Hako Minuteman Mercury Vacuum	HWMF Room 121
Sigma Automatic Wastewater Samplers – 3	HWMF Room 121
Sensidyne HazCat Chemical ID Kit	HWMF Room 119

C. Transportation Equipment	**Location**
Risk Management Vehicles:	
Chevy Van 3797 - plate: G-181CZ	Parking Lot at
Chevy Blazer 4242 – plate: G-899DX	220 W. 6th St.
Chevy S-10 Pickup 3574– plate: G-570CA	

Toyota Prius Sedan 3822 – plate: G-A07001	
Dodge Stratus Sedan 3898 – plate: G-503DB	
Chevy C/K 2500 Pickup 3104 – plate: SA-G-810AX	HWMF
Chevy Silverado Box Truck 4022 – plate: G-163DM	HWMF
Chevy Silverado Flat Bed Truck 4707 – plate: G-485GA	HWMF

D. Communications Equipment	**Location**
Each staff member is assigned a cellular phone	
9 – Portable Two-Way Radios	USA Rooms B224, B226, B246, B250, B241, B239, B235, B237, B254
Rx Frequencies: CH 1 – 460.35000 – UAPD 1	HWMF (3)
CH 2 – 460.55000 – UAPD 2	
CH 3 – 460.25000 – UAPD 3	
CH 4 – 453.42500 – UA Community Use	
CH 5 – 453.10000 – TFD HAZMAT	
CH 6 – 453.20000 – TFD Dispatch	
Realistic PRO-42 10-Channel Programmable Scanner	USA Room B213
HP Fax Machine Number = 621-3706	USA Room B227
Ricoh Fax Machine Number = 626-4965	HWMF Room 101

E. Industrial Hygiene Monitoring Equipment	**Location**
Rae Systems ppbRae PID (**P**hoto**I**onization **D**etector)	USA Room B213
Rae Systems ppbRAE 3000 PID(**P**hoto**I**onization **D**etector)	USA Room B213
Rae Systems ppbRAE 3000 PID (**P**hoto**I**onization **D**etector)	BIOSPHERE
Rae Systems ToxiRae PID, personal (2)	USA Room B213
TIF RX-1A Halogen (Refrigerant) Leak Detector	USA Room B213

Jerome 431-X Mercury Vapor Analyzer	HWMF Room 119
TSI Indoor Air Quality Calc (CO_2, Relative Humidity, Temp)	USA Room B213
Draeger Acura pump (colorimetric air testing tubes)	USA Room B213
SKC Airchek Personal Sampling Pumps (3)	USA Room B213
Gilian Personal Sampling Pumps (6)	USA Room B213
Gast High Volume Air Sampling Pumps (5)	USA Room B213
Assorted Sorbent Tubes & Filters	USA Room B223
Industrial Scientific Carbon Monoxide Monitor	USA Room B213
MEI pDRs: Respirable Aerosol Monitors (3)	USA Room B213
Rae Systems QRae 4 gas monitor (O_2, H_2S, CO, LEL)	USA Room B213
Bios Sampling pump flow calibrators (2)	USA Room B223
Euroclean Dry Vacuum with HEPA filters	USA Room B213
OHD Fit Tester 3000 – quantitative respirator fit tester	USA Room B221
4- Qualitative respirator Fit Test kits (bitrex)	USA Room B221
Digital micromanometer & pitot tube (air pressure)	USA Room B213
Alnor Thermo Anemometer (exhaust ventilation assessment)	USA Room B213
Fluke TiS Infrared camera (water leak detection)	USA Room B213
F. Radiation Response Equipment	**Location**
Geiger Mueller Counters - 23	Babcock Room 1213
Low Energy Gamma Scintillators – 9	Babcock Room 1213
Ionization Chambers – 8	Babcock Room 1213
Alpha Scintillators – 2	Babcock Room 1213
Neutron Detectors – 3	Babcock Room 1213
Radon Emission Detectors – 3	Babcock Room 1213
Microstar Dosimeters – 50	Babcock Room 1213

Section A. Personal Protective Equipment

Items listed in this section provide respiratory, eye, dermal and hand protection. Respiratory protection is either air-purifying or supplied air respirators.

Section B. Spill Response Equipment

Items listed contain, neutralize or absorb releases. Tools and equipment are non-sparking or explosion proof for use in potential flammable situations. Some equipment is used for specific situations, e.g., the mercury recovery vacuum and the HazCat kit for unknown identification.

Section E. Industrial Hygiene Monitoring Equipment

Equipment in this section is used for determining personal protection and respirator type, level of contamination, extent of contamination and to determine if remediation goals have been achieved. Equipment uses are listed below.

Industrial Hygiene Instrumentation Notes

General Guidance

To Measure	**Use this instrument**
Volatile Organic Chemicals (health, lower explosive limits excluding methane & nuisance odors)	Photoionization Dectector (PID)** sensitive, not specific, real time, datalogging detect many but not all organic chemicals
Halogenated gases & anesthetics freons, perchloroethylene	Refrigerant Leak Detector (TIF RX-1A) Halogen-selective sensor, very sensitive presence/absence, semi-quantitative, real time
Lower Explosive Level (LEL) from methane	QRAE 4 gas monitor, real time, datalogging
Airborne dusts	MEI personal data rams – respirable aerosol monitors (real time), non-specific, datalogging
Chemical-Specific Sampling	
Environmental, personnel	Whole air canister (rent) laboratory analysis
Personnel	Personal sampling pump, sorbent, laboratory analysis.
Environmental & Personnel	Colorimetric tubes (grab sample)
Mercury Vapor	Jerome Mercury Vapor Analyzer
Bulk dusts	Sampling pump or HEPA vacuum with filter cassette or dustream collector + lab analysis

** **Photo Ionization Detectors (PIDs)** are real-time instruments that rapidly detect and quantify a wide variety (but not all) volatile organic chemicals at part per billion to part per million levels. PIDs are helpful personnel safety decisions and carbon bed saturation determination. PIDs do not identify which chemicals are present, so are used together with other chemical-specific information, such as MSDSs, product labels or gas chromatagraphy analysis of vadose vapor or groundwater samples. In general, PIDs can measure any volatile compound with an ionization energy lower than the instrument's lamp power of 10.6 eV. Stonger 11.7 eV lamps are available for use to answer specific questions but are short-lived and costly. PIDs are calibrated with isobutylene gas and correction factor(s) applied to estimate airborne levels of other volatile organic chemicals. Consult Rae Systems Technical Note TN-106 (hard copy in instrument cases) for instructions and chemical list with ionization energies and correction factors, or contact departmental industrial hygienist for guidance.

Example: A PID with a 10.6 eV lamp can detect ethanol vapors but not methanol vapors. A PID probe placed into the headspace of a methanol reagent bottle will read zero ppb, despite the presence of methanol vapor. Why? The ionization energy of methanol is 10.85 eV – higher than the 10.6 eV lamp rating. Ethanol's ionization energy is 10.47 eV – just below the lamp rating, and is detectable by a PID. Where there is mixture of both ethanol and methanol in a known ratio, a PID can measure the presence of ethanol as an indicator chemical, and methanol levels can be estimated mathematically.

Rental Instrumentation: Should a need arise to quantify volatile organic chemicals not measurable with a PID with both a high degree of sensitivity and identify multiple chemicals present, a portable gas chromatograph/mass spectrophotometer may be considered for rental.

Section F. Radiation Response Equipment

Equipment in this section is specifically used for detection of a radiation release. The level of radiation released, size of release and personal exposure can be determined using this equipment.

EXHIBIT 7

WRITTEN REPORT ADDRESSES

Environmental Protection Agency

Region IX Administrator

75 Hawthorne St

San Francisco, CA 94105

Arizona Department of Environmental Quality

Director

1110 W Washington St

Phoenix, AZ 85007

Pinal County Local Emergency Planning Committee

PO Box 727

Florence, AZ 85232

Arizona Emergency Response Commission

5636 E McDowell Rd

Phoenix, AZ 85008

Department of Administration

Risk Management Section

100 N 15th Ave, Suite 301

Phoenix, AZ 85007 Phone: 620-542-2182

Arizona Radiation Regulatory Agency

Director

4814 S 40th St

Phoenix, AZ 85040

EXHIBIT 8

DISTRIBUTION DOCUMENTATION

THE UNIVERSITY OF ARIZONA

Risk Management Services
Division of Business Affairs

University Services Annex
Building 300B
220 W. Sixth St., 2nd Floor
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Tucson, AZ 85721-0300
(520) 621-1790
Fax: (520) 621-3706
http://risk.arizona.edu/

December 1, 2011

Brian Seastone, Commander
Emergency Preparedness Coordinator
University of Arizona Police Department
seastone@uapd.arizona.edu

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Commander Seastone,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

PTRL is regulated under a Post-Closure Permit issued to the UA by the Arizona Department of Environmental Quality. The Permit specifies site monitoring, security, and maintenance procedures for PTRL. One of the required Permit components is a Contingency Plan which describes specific procedures to be implemented in the event of an emergency situation at the PTRL. The Plan must be kept current, and distributed to area law enforcement, emergency response agencies, and others that might respond to an emergency at the site.

The updated Contingency Plan for PTRL is included with this email as a separate attachment. If you wish to have a hardcopy printed and delivered to you, please forward a request and we will provide that for you. If you have any questions about PTRL, or would like to arrange a site visit to be familiar with the facility, please contact this office for assistance.

Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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http://risk.arizona.edu/

December 1, 2011

Keith Carsten, Assistant Director
UA Office of Radiation, Chemical and Biological Safety

kcarsten@email.arizona.edu

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Mr. Carsten,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

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http://risk.arizona.edu/

December 1, 2011

Stephen Husman, Resident Director
UA Campus Agricultural Center

husman@ag.arizona.edu

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Mr. Husman,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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December 1, 2011

William Pernett, Chief
Golder Ranch Fire District

wpernett@golderranchfire.org

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Chief Pernett,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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December 1, 2011

Larry Southard, Chief
Oracle Fire Department

lsourthard@oraclefire.org

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Chief Southard,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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December 1, 2011

Lou Miranda
Pinal County Local Emergency Planning Committee

Lou.miranda@pinalcountyaz.gov

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Mr. Miranda,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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December 1, 2011

Steve Henry, Chief
Pinal County Sherriff's Department

Steve.henry@pinalcountyaz.gov

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Chief Henry,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

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December 1, 2011

Jack Flindt
Pinal County Risk Management

Jack.flindt@pinalcountyaz.gov

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Mr. Flindt,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

THE UNIVERSITY OF ARIZONA

Risk Management Services
Division of Business Affairs

University Services Annex
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Fax: (520) 621-3706
http://risk.arizona.edu/

December 1, 2011

Paul Culberson
Arizona State Emergency Response Commission (AZSERC)

Paul.culberson@azdema.gov

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Dear Mr. Culberson,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

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Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

THE UNIVERSITY OF ARIZONA

Risk Management Services
Division of Business Affairs

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http://risk.arizona.edu/

December 1, 2011

Jim Santino
Southwest Hazard Control

jsantino@swhaz.com

RE: UA Page-Trowbridge Ranch Landfill – Post Closure Contingency Plan Update
EPA ID No. AZD-980665814

Commander Seastone,

The University of Arizona manages the Page-Trowbridge Ranch Landfill (PTRL), which is located north of Highway 77, between Oracle Junction and Oracle, in Pinal County, Arizona. The PTRL was used from the early 1960s until 1986 for disposal of low-level radioactive and hazardous chemical wastes generated by the University of Arizona. The facility includes an engineered cover system over the landfill cells, groundwater and soil vapor monitoring wells, and a solar-powered soil vapor extraction system, all encircled by a security fence at the southwest corner of the UA Page Ranch property.

PTRL is regulated under a Post-Closure Permit issued to the UA by the Arizona Department of Environmental Quality. The Permit specifies site monitoring, security, and maintenance procedures for PTRL. One of the required Permit components is a Contingency Plan which describes specific procedures to be implemented in the event of an emergency situation at the PTRL. The Plan must be kept current, and distributed to area law enforcement, emergency response agencies, and others that might respond to an emergency at the site.

The updated Contingency Plan for PTRL is included with this email as a separate attachment. If you wish to have a hardcopy printed and delivered to you, please forward a request and we will provide that for you. If you have any questions about PTRL, or would like to arrange a site visit to be familiar with the facility, please contact this office for assistance.

Best regards,

Steven C. Holland CRM ARM
Assistant Vice President for Risk Management Services

Enclosure: PTRL Post Closure Contingency Plan – updated December 2011

APPENDIX F-2

SITE HEALTH AND SAFETY PLAN

APPENDIX F-2 (Application APPENDIX F)

SITE HEALTH AND SAFETY PLAN

SITE HEALTH AND SAFETY PLAN

PAGE-TROWBRIDGE RANCH LANDFILL

AZD980665814

North 32° 36' 26.87"

West 110° 53' 45.83"

(Soil Vapor Extraction Array)

Updated May 2011

1.0 INTRODUCTION

1.1 Purpose

This Site Health and Safety Plan (Plan) defines requirements and designates protocols to be followed during field activities at the Page-Trowbridge Ranch Landfill (PTRL), located at T9S, R14E, south half of Sec. 27 and north half of Sec. 34, Gila and Salt River Base Meridian, Pinal County, at Latitude 32°36'50" North and Longitude 110°53'30" West in Arizona. The site is a hazardous waste landfill that was used to dispose of wastes generated from university activities and was closed in accordance with an approved RCRA closure plan. A soil vapor extraction (SVE) system was installed at the site to remove volatile organic compounds (VOCs) from soil vapor. The SVE system consists of two, solar-powered, positive displacement blower units (SVE-1 and SVE-2). SVE-1 extracts soil vapor from well SGS-Well at a rate of approximately 85 standard cubic feet per minute (scfm), while SVE-2 is designed to extraction soil vapor from or inject air into well SGD-Well at a design rate of approximately 40 scfm. The extracted soil vapor stream is passed through two granular activated carbon (GAC) adsorbers in series for removal of VOCs prior to discharge to atmosphere.

Post-closure activities covered by this Plan include the following:

1. Inspection and maintenance of the covers of the closed landfill unit;

2. Groundwater monitoring and reporting;

3. Soil vapor monitoring; and

4. Inspection and maintenance of the perimeter fence, access roads, warning signs, monitor wells, SVE equipment, drainage control systems, survey monuments, and closed landfill unit vegetative covers.

5. Site visitation by regulatory personnel, service vendors, public tours, etc.

This Plan applies to all personnel at the site involved with the above listed activities. This includes University of Arizona (UA) staff, contractor/subcontractor employees, and regulatory representatives, herein after referred to as "personnel." All personnel working on site will be informed of the site emergency response procedures and any potential health or safety hazards of the operation.

This Plan, based on the ongoing work at the site, defines the likely hazards and provides methods to protect personnel from these hazards. This Plan addresses site-specific activities and hazards, and relies upon overall employee and subcontractor health and safety program policies and procedures established by the UA, which augment and expand upon these site-specific provisions. Contractors and subcontractors are expected to have their own organizational health and safety programs that apply to their activities, including a site-specific health and safety plan that is at least as effective as this Plan. This Plan was developed according to the safety standards as defined by EPA/OSHA/NIOSH.

1.2 Organization and Management of the Site Health and Safety Plan

Prior to entering the work area, personnel must read and agree to comply with the provisions of the Plan. Revised copies of the Plan will be distributed to replace earlier versions and a record of distribution will also be kept on file at the UA Department of Risk Management Services.

Assessment of the appropriate health and safety procedures will be conducted and communicated to personnel through pre-entry briefings. Prescribed measures will be documented in the project log.

2.0 AUTHORIZED ENTRY

Entry into the PTRL facility is restricted to authorized individuals with an official purpose and need to access the facility. All groups entering the site must be accompanied by at least one person designated by the UA to serve as a Site Health and Safety Officer (SHSO) for that visit. The SHSO for each visit will be predetermined prior to the visit. The SHSO is responsible for advising all visitors to the site of known hazards and safety procedures to be followed while on site. The SHSO is also responsible for making a written log of all site visitors by name and affiliation with date, time, and purpose of the visit. Due to the remote nature of PTRL, the SHSO shall be First Aid and CPR certified.

The SHSO shall:

1. Ensure that appropriate personal protective equipment is available for the PTRL site personnel and enforce proper utilization of personal protective equipment by all on-site PTRL personnel;

2. Ensure that all PTRL personnel have received required training, are aware of the potential hazards associated with site operations, have been instructed in the work practices necessary for personal health and safety, and are familiar with the site HASP's procedures for all scheduled activities and for dealing with emergencies.

3. Observe UA's and contractor's procedures with respect to health and safety. If the SHSO believes that UA or a contractor's personnel are or may be exposed to an imminent health hazard, the SHSO shall suspend the hazardous site work. If site personnel do not have required protective equipment, the SSO shall consult with the supervisor before proceeding with the work;

4. Implement the site HASP and report any observed significant differences from the site conditions anticipated in the Plan to the project manager;

5. Conduct daily site safety briefings and additional briefings as needed;

6. Calibrate monitoring equipment daily and properly record and file calibration and monitoring results;

7. Under direction of the supervisor, perform required exposure monitoring;

8. Maintain monitoring equipment or arrange maintenance as necessary;

9. Assume other duties as directed by the supervisor; and

10. Prepare reports of any observed accidents/incidents or inadequate work practices, and communicate them to the supervisor.

As a general practice, all entry to PTRL for sample collection, site maintenance, or other physical work shall require a minimum group size of two persons. For site visits that are limited to surface inspection only, the minimum group size may be one person, and that person shall be deemed the SHSO.

Properly trained personnel (as described below in Section 5) from the following agencies and departments are authorized to enter PTRL for any official purpose, and are authorized to serve as SHSO for other visitors to the site.

1. UA Risk Management Services

2. UA Radiation Control Office

3. State Risk Management

4. Authorized contractors and service personnel (all contractors must have written authorization from UA to be on site without a UA escort).

The SHSO has total responsibility for ensuring that the provisions of the Plan are adequate and implemented in the field. Changing field conditions may require decisions to be made concerning adequate protection programs. The SHSO is authorized to stop any site activity and terminate any site visit if safety or health conditions warrant such action.

3.0 HAZARD ASSESSMENT

Potential hazards associated with site activities may include: physical, vehicular, chemical, or biological and radiological. Each potential size hazard is discussed below, along with appropriate steps to manage each hazard.

3.1 Physical Hazards

Remote Location - PTRL is located several miles from populated areas. There are no utilities or permanent communication on site. Medical assistance in the event of an emergency is not immediately available. As indicated above, the SHSO shall be First Aid/CPR certified as preparation for potential medical emergencies.

Heat stress - PTRL is exposed to the desert elements, with few shaded locations, and no water on site unless monitoring wells are being pumped. Where possible, shift work hours to less stressful times of the day. Allow frequent and adequate rest periods, adequate fluid intake, and monitor employees for signs of thermal stress. Wear clothing suitable for the current weather conditions.

To avoid heat stress, cool potable water will be readily available, and site personnel will be encouraged to drink plenty of fluids and take periodic work breaks in hot weather. The signs, symptoms, and treatment of heat stress include:

- Heat rash, which may result from exposure to heat or humid air.

- Heat cramps, which are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include: muscle spasms and pain in the hands, feet, and abdomen. Persons experiencing these symptoms should rest in a cooler area, drink cool (not cold) liquids and gently massage cramped muscles.

- Heat exhaustion, which occurs from increased stress on various body organs including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include: pale, cool, moist skin; heavy sweating; dizziness; nausea; and fainting. Persons experiencing these symptoms should lie down in a cooler area, drink cool liquids with electrolytes (Gatorade, etc.), remove any protective clothing, and cool body with wet compresses at forehead, back and neck, and/or armpits.

- Heat stroke is the most serious form of heat stress. Temperature regulation fails and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury and death occur. Competent medical help must be obtained. Signs and symptoms are: red, hot, usually dry skin; lack of or reduced perspiration; nausea; dizziness and confusion; strong, rapid pulse; and coma.

If site temperatures are forecast to exceed 85 degrees Fahrenheit and physically demanding site work will occur in impermeable clothing, the SHSO will promptly consult with a certified industrial hygienist (CIH) and a radial pulse monitoring method will be implemented to ensure that heat stress will be properly managed among the affected workers. The following chart indicates the relative risk of heat stress.

Heat Index Chart

Temperature (°F) vs. Relative Humidity

	10%	**15%**	**20%**	**25%**	**30%**	**35%**	**40%**	**45%**	**50%**	**55%**	**60%**	**65%**	**70%**	**75%**	**80%**
115	111	115	120	127	135	143	151								
110	105	108	112	117	123	130	137	143	151						
105	100	102	105	109	113	118	123	129	135	142	149				
100	95	97	99	101	104	107	110	115	120	126	132	136	144		
95	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136
90	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113
85	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97
80	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86
75	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78

Heat Index/Heat Disorders

Heat Index	**Possible heat disorders for people in higher risk groups**
130 or higher	Heatstroke/sunstroke highly likely with continued exposure.
105-130	Sunstroke, heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity.

90-105	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
80-90	Fatigue possible with prolonged exposure and/or physical activity.
Source: National Weather Service	

Combined temperature and humidity conditions that result in a heat index exceeding 100 will trigger radial pulse monitoring and heat stress management.

Cold Stress

Exposure to even moderate levels of cold can cause the body's internal temperature to drop to a dangerously low level. This is called hypothermia, and is a significant hazard during fall, winter and early spring. Exposure to temperatures below freezing can also cause frostbite of hands, feet, and face.

Symptoms of hypothermia include:

- vague, slow, slurred speech
- forgetfulness, memory lapses
- inability to use hands
- frequent stumbling
- drowsiness.

To prevent hypothermia, site personnel will stay dry and avoid exposure. Site personnel will be encouraged to wear sufficient clothing in layers such that outer clothing is wind- and water-proof and inner layers retain warmth (wool or polypro¬pylene). Site personnel will keep hands and feet well protected at all times.

Sunburn - Skin exposure to ultraviolet radiation can result in sunburn. Site personnel will use long-sleeved shirts, hats, and sunscreen as needed to protect against sunburn.

Back strain due to lifting - Workers may expect to carry heavy objects and perform repetitive tasks. Use proper lifting techniques to prevent back strain. Employ several different positions when retrieving sounder cable from wells to avoid repetitive strain injuries. Prevent back injury by never lifting or carrying a load that is heavier than you can comfortably handle. When lifting heavy objects, bend the knees and use the leg muscles, and get assistance when necessary.

Slip/trip/fall hazard - Surfaces covered with heavy vegetation and under growth, loose or wet soil, or uneven ground create a slip/trip/fall hazard. Be alert and observe terrain when walking to minimize slips and falls. Steel-toes and/or lug-sole boots provide additional support.

Electrical hazard due to lightning activity - Abandon site activities and seek shelter when proximity of lightning is less than three miles (three or less seconds between lightning flash and sound of thunder).

Electrical hazard - Electrical shock hazards are associated with the soil vapor extraction system maintenance and the use of electrical equipment. Maintain electrical extension cords in good condition and protect them from damage. Make sure electrical connections are a safe distance from water or wet ground. Only trained and qualified electricians are authorized to work within touching distance of exposed energized conductors, such as when the soil vapor extraction equipment is opened for maintenance or repair. Electrical shock hazards associated with machinery maintenance or repair will be controlled in accordance with UA Lockout/Tagout safety program.

Rotating Equipment hazard - Physical hazards (exposed belts or fan blades, point of operation, rotating equipment) associated with machinery maintenance or repair will be controlled in accordance with UA Lockout/Tagout safety program.

Blowing dust and debris - Use barriers to protect against wind and blowing debris, or leave the site until safe working conditions have returned.

3.2 Vehicular Hazards

Uneven or unsafe surfaces for vehicles—Vehicles driven on uneven or unsafe surfaces can result in accidents (i.e. overturned vehicles or flat tires). Ensure all maintenance is performed on vehicles before going to the field. Always wear safety belts while in a moving vehicle. Keep vehicles on roads and travel ways wherever possible. Perform site surveillance on foot to choose clear driving paths when traveling off regular roadways.

Cell phone usage while operating a motor vehicle is strongly discouraged, and texting while driving is prohibited while on-site and traveling to/from PTRL. PTRL personnel will take care to minimize instances of distracted driving.

3.3 Chemical Hazards

No chemical compounds have been detected in the groundwater at the site in concentrations that pose a potential human health risk. Therefore, chemical-specific exposure monitoring is not required for these tasks. However, chemical-resistant gloves are required when samples are taken. Sample collection containers may contain corrosive reagents and should be handled with care to avoid skin, eye or respiratory exposure. Chemicals used for site maintenance such as vegetation control must be used only by trained applicators, in accordance with manufacturer specifications and safe handling, use and disposal provisions from the material safety data sheet(s) for the chemicals, a copy of which must be maintained on site.

Soil vapors removed by the SVE system are composed of landfill gas and have elevated levels of many VOCs and may have significant levels of carbon dioxide and methane, which pose an asphyxiation hazard when the gas accumulates in confined areas. The soil vapors are treated onsite before being discharged to the atmosphere. Treated soil vapor contains some VOCs.

Exposure to the asphyxiation hazard when in a confined area (such as a vault or equipment enclosure) is prevented by monitoring for oxygen in such areas prior to entry, in accordance with UA confined space entry policy.

In addition to the asphyxiation hazard in enclosed spaces, methane and other VOCs pose a hazard of explosion when these combustible gases exceed the lower explosive limit (LEL) and are below the upper explosive limit. Therefore, during inspection, sampling and maintenance of the Soil Vapor Extraction system, the immediate work area will be screened for oxygen and combustible gas using a combination oxygen/combustible gas metert. Finally, for the toxicity hazard of the VOCs, a photo-ionization detector (PID) with an 11.7 eV lamp (required to detect the chlorinated compounds of concern) will be used to monitor air quality in the breathing zone. Site personnel are advised that this higher-energy lamp has a short lifetime and is not usually supplied as standard equipment for PID rentals. For the mixture of VOCs anticipated, the reading of the PID is estimated to be on average 98 percent of the actual total VOC concentration (in ppm). Separate action levels were calculated based on SVE system influent and effluent sample data. Action levels based on SVE system influent and effluent sample data are 12 ppm and 16 ppm, respectively. The more conservative action level of 12 ppm will be used while conducting air monitoring in the vicinity of the SVE system. If the PID reading exceeds the action level of 12 ppm for more than 1 minute in the breathing zone of any worker, workers should stop work, leave the immediate area, and consult the SHSO to monitor onsite air quality, develop additional controls and/or a respiratory protection addendum to the Plan. If at any time workers suspect significant chemical exposures (e.g. detect unusual odors, develop symptoms of occupational exposure to the COCs) or have other unexplained adverse health effects (e.g. dizziness, nausea), workers will be encouraged to stop work and notify the SHSO.

AIR MONITORING ACTION LEVELS IN WORK ZONE	
Monitor Reading sustained more than 1 minute	**Action**
Oxygen > 19.5% in work area Combustible Gas < 5% LEL in work area PID ≤ 12 ppm in breathing zone	Continue monitoring
Oxygen < 19.5% in work area Combustible Gas ≥ 5% LEL in work area PID > 12 ppm	Stop work, leave area, and consult SHSO.

Also during inspection, sampling and maintenance, care will be taken by site personnel to stand up-wind of soil vapor sampling ports to decrease potential exposure to well vapors. If an air monitoring device is not available, site personnel will avoid the vicinity of the SVE system.

3.4 Radiological Hazards

No radioactive material has been detected in the groundwater at the site. There is no measurable radiation exposure to personnel from buried material. Radiation dosimeters are not required.

3.5 Biological Hazards

Exposure to irritant and toxic plants - Exposure to irritant and toxic plants (sticker bushes, cactus) may cause infection and allergic reactions. Wear long sleeved clothing and pants to minimize contact with irritant and toxic plants. Avoid areas with such plants. Carry appropriate first aid for known allergic reactions.

Insect/Animal bites - Native wildlife (bees, wasps, spiders, coyotes, rodents, ticks, scorpions, and snakes) present the possibility of bites and associated diseases. Avoid wildlife when possible. In case of an animal bite, perform first aide and capture the animal, if possible, for identification or rabies testing. Perform a tick check after leaving the area. Avoid putting hands and feet into locations that may harbor reptiles such as drainage culverts, under rocks, under equipment etc. Persons with allergies to bees will make the supervisor and SHSO aware of their allergies and will avoid areas where bees are identified. Due to the remote location of the PTRL, persons with known bee allergies are strongly recommended to carry an epinephrine autoinjector, also known as an EpiPen.

3.6 Task Specific Hazards

There are specific hazards associated with the tasks to be performed at the site. These are associated with a variety of different tasks to be accomplished.

Site walk through/inspection - Site walk through/inspection requires minimal contact with the environment. Biological hazards and slip/trip/fall hazards are most likely to be encountered when conducting site walk through/inspection.

Water sampling - Electrical shock hazards are associated with use of electrical equipment around water or wet surfaces. Maintain electrical extension cords in good condition and protect them from damage. Employ proper lifting techniques to prevent back strain, as previously described. Maintain a neat and dry workspace to avoid slipping and electrical hazards. Avoid splashes to the eyes or skin by wearing appropriate safety equipment as described below.

4.0 HAZARD REDUCTION

4.1 Security/Site Control Measures

The following section defines procedures for maintaining site control. Site control is an essential component in the implementation of the site health and safety program.

4.1.1 Security

Fence - The entire facility is enclosed by a 6-foot chain-link fence (with 45o barb wire on top) which surrounds the site. The fence posts are made of steel and are set in concrete.

Gates - Access to the facility is through three 24-foot rolling gates (two on the east boundary and one on the north boundary). The facility gates are kept locked at all times when UA personnel or their representatives are not at the facility.

Signs - Warning signs are posted on all sides of the enclosure and on all entrances.

4.1.2 Access/Egress

The names of field personnel and their site entry and exit times will be noted in the field log. Accidents, first aid treatment, and emergency response actions will be noted in the field log.

4.1.3 Safe Work Practices

Before personnel begin work, the anticipated duration of the work period shall be established. The length of the work period is limited by weather conditions at the site, the level of protection, the task(s) performed, and the personal needs of workers. The following is a list of standing orders for the site.

- No smoking.
- No horse play.
- No matches or lighters.
- Wear the appropriate Personal Protective Equipment (PPE).

4.2 Personal Protective Equipment

All personnel must wear PPE appropriate for their activities. Selection of the level of protection is based upon the following:

- Type and measured concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, liquids, or other direct contact with material due to work being done.
- Knowledge of chemicals on-site along with properties such as toxicity, route of exposure, and contaminant matrix.

The level of protection provided by PPE selection shall be upgraded or downgraded by the SHSO based on changing site conditions or findings of investigations. When a significant change occurs, the hazards shall be reassessed. Indicators for reassessment include:

- Commencement of a new work phase, such as the start of sampling or work that begins on a different portion of the site.
- Change in weather, particularly with respect to lightning.
- When temperature extremes or individual medical considerations limit the effectiveness of PPE.

4.2.1 Personal Protective Equipment for Specific Tasks

Required PPE is summarized in Table 1. Hats and sunscreen are strongly recommended for daytime use.

Table 1. Personal Protective Equipment for Site Work				
Activity	**Shirt and Long Pants (1)**	**Boots (2)**	**Eye Protection (3)**	**Latex/Nitrile Gloves (4)**
Site Walk Through/Inspection	Required	Required	Required	
Groundwater Sampling, soil vapor extraction equipment maintenance or repair	Required	Required	Required	Required

1. Long pants or coveralls, and sleeved shirt (long or short sleeves).
2. Lug soled or steel toed boots
3. Safety glasses or sun glasses
4. Chemical resistant latex or nitrile gloves

4.2.2 Inspection of Personal Protective Equipment

Proper inspection of PPE features several sequences of inspection depending upon specific article of PPE and it's frequency of use. The different levels of inspection are as follows:

- Inspection and operational testing of equipment received from the factory or distributor.
- Inspection of equipment as it is issued to workers.
- Inspection after use or training and prior to maintenance.
- Periodic inspection of stored equipment.
- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.

The primary inspection of PPE will be conducted by the site technician prior to immediate use. This insures that the specific device or article has been checked out by the worker and that the user is familiar with its use.

Clothing - Determine that clothing material is correct for the specified task at hand. Legs must be covered and shirts must be worn. No specific clothing material is banned for this work, however, baggy, light colored; cotton (or cotton blends) are recommended for daytime wear. Visually inspect clothing for tears and malfunctioning closures.

Boots - Sturdy shoes or boots with traction or lug soles are recommended. Workers will be on their feet most of the shift so comfort is important. Open toes and sandals are not allowed. Cleaning of shoes will ordinarily be left to the worker.

Eye Protection - Inspect glasses for cracks and malfunctions prior to use.

Gloves - Visually inspect gloves for tears, non-uniform coating, and pin-hole leaks. Observe gloves regularly for tears. Gloves will be disposed off-site.

5.0 TRAINING

5.1 Personnel Training

All personnel that perform work related to site groundwater and soil vapor (e.g. groundwater/soil vapor sampling and SVE system maintenance) are required to be trained in accordance with 29 CFR 1910.120 covering Hazardous Waste Operations and Emergency Response (HAZWOPER). Documentation of training will be maintained by the Department of Risk Management Services. Prior to arrival on site, all personnel must show certified documentation of a minimum of 24 hours of HAZWOPER instruction off site. All personnel must also receive 8 hours of HAZWOPER refresher training annually. At least one person on site will be current in CPR/First Aid. Documentation of all required training will be maintained on site by the supervisor.

Additional site-specific training that covers on-site hazards, PPE requirements, use and limitations, decontamination procedures, and emergency response information as outlined in this site HASP will be given by a supervisor before beginning on-site work. Site-specific training briefings should be documented in the PTRL field notes.

HZAWOPER training is not required for visitors and personnel that perform work not related to site groundwater and soil vapor (e.g. mowing grass). However, all personnel must receive site-specific training on on-site hazards and emergency response, and must be made aware of the hazardous waste at the site.

5.2 Health and Safety Briefing

Health and safety briefings will be conducted before entering the site to begin work. They will also be conducted if conditions change such that potential hazards and risks change. All personnel working at the site will attend the briefings which will be conducted by the SHSO.

6.0 EMERGENCY RESPONSE

Briefings will be conducted prior to each work period, at which time all employees will be trained in and reminded of provisions of the PTRL Contingency Plan, communication systems, and evacuation routes. The Plan will be reviewed on a regular basis, and revised if necessary, by the SHSO. This will ensure that the Plan is adequate and consistent with prevailing site conditions.

6.1 Personnel Roles and Lines of Authority

The SHSO has primary responsibility for responding to and correcting emergency situations. This includes taking appropriate measures to ensure the safety of site personnel and the public. Possible actions may involve the evacuation of personnel from the site area, ensuring that the Emergency Response Action Plan has been implemented, that appropriate authorities are notified and that follow-up reports are completed.

6.2 Evacuation Routes and Procedures

In the event of an emergency which necessitates an evacuation of the site, all personnel shall proceed to the closest exit and move to a predetermined safe area associated with the evacuation route. Personnel will remain at that area until re-entry is allowed or an authorized individual provides further instructions. The chosen safe area should be upwind from the site.

6.3 Emergency Contact/Notification System

In the event of an emergency, personnel will take direction from the SHSO and notify the appropriate emergency organization.

Table 2. Off-Site Emergency Response Organizations and Phone Numbers	
Ambulance	911
Police	911
Fire	911

The Pinal County Sheriff's Office in Florence is the 911 operator. The Golder Ranch Fire Department or Oracle Fire Department is the medical and fire responder.

Because there is no physical address for Page-Trowbridge Ranch Landfill, GPS coordinates must be used. The coordinates are as follows:

North 32° 36' 26.87"

West 110° 53' 45.83"

(Soil Vapor Extraction Array)

6.4 Medical Surveillance Requirements

As a follow-up to an injury or possible exposure, all employees are entitled to and are encouraged to seek medical attention and physical testing.

6.5 Emergency Medical Treatment

First aid should be administered while awaiting an ambulance or paramedics. All injuries must be immediately reported to the SHSO. Emergency response personnel shall be notified of any chemical contamination and level of contamination.

The closest emergency medical locations are as follows:

Rancho Vistoso Urgent Care
13101 N Oracle Rd
Oro Valley, AZ 85739
520-818-2000

Northwest Medical Center Oro Valley
1551 E Tangerine Rd
Oro Valley, AZ 85755

520-901-3500

Maps and driving directions to both facilities can be found at the end of this Plan.

6.6 Emergency Equipment

The following emergency equipment will be available during site entry.

- First Aid Kit
- Fire Extinguisher
- A minimum of two one-gallon water containers for eye wash

Telephones

There must be at least one cell phone available during site entry.

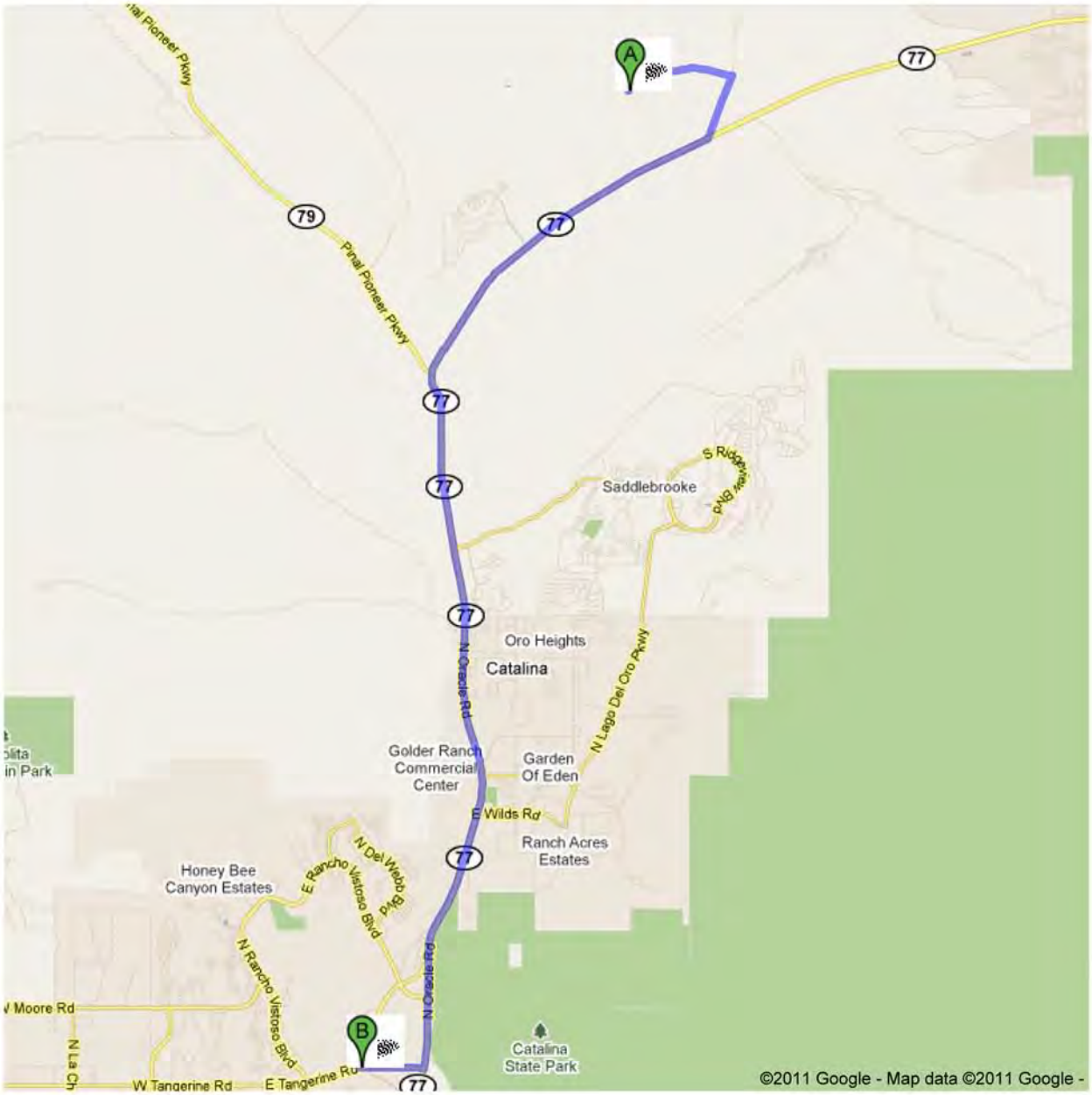
6.7 Procedures for Field-Work Related Injury

If the injury is non-life threatening and the injured person can be moved after first aid, personnel should proceed to the emergency medical locations listed above.

The injured person and supervisor need to complete UA Employee Injury Report as soon as possible.

Directions to Northwest Medical Center Oro Valley
1551 East Tangerine Road, Oro Valley, AZ 85755-6213 - (520) 901-3500
17.2 mi – about **29 mins**

Save trees. Go green!
Download Google Maps on your phone at **google.com/gmm**



Project Dr

1.	Head **north** on **Project Dr** toward **S Willow Springs Rd** About 6 mins	go 1.5 mi total 1.5 mi
2.	Turn right onto **S Willow Springs Rd** About 3 mins	go 0.9 mi total 2.4 mi
3.	Turn right onto **AZ-77 S** About 18 mins	go 14.0 mi total 16.4 mi
4.	Turn right onto **E Tangerine Rd** Destination will be on the right About 2 mins	go 0.8 mi total 17.2 mi

Northwest Medical Center Oro Valley
1551 East Tangerine Road, Oro Valley, AZ 85755-6213 - (520) 901-3500

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2011 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

Directions to 13101 N Oracle Rd, Oro Valley, AZ 85739
15.3 mi – about **26 mins**
Rancho Vistoso Urgent Care

Project Dr

1.	Head **north** on **Project Dr** toward **S Willow Springs Rd** About 6 mins	go 1.5 mi total 1.5 mi
2.	Turn right onto **S Willow Springs Rd** About 3 mins	go 0.9 mi total 2.4 mi
3.	Turn right onto **AZ-77 S** Destination will be on the right About 16 mins	go 12.9 mi total 15.3 mi

13101 N Oracle Rd, Oro Valley, AZ 85739

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

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