



Field Sampling Plan for:

**Hazardous Substances Phase II Environmental Site Assessment for
Moapa Paiute Farm Large Greenhouses
Moapa River Reservation
Moapa, Nevada**

For

Moapa River Reservation
Moapa, Nevada

November 11, 2011

Program Coordinator: David Friedman, NDEP Brownfields Program

Project Manager: Joshua Fortmann, Kleinfelder

Phase II Project Manager: Joshua Fortmann, Kleinfelder

Quality Coordinator: Mary Siders, NDEP Brownfields Program

Approved by NDEP Brownfields
Program Coordinator:

Date:

David Friedman

Reviewed by: NDEP Brownfields
Quality Coordinator:

Date:

Mary Siders

Brownfield Project: Moapa Paiute Farm Large Greenhouses, located on the Moapa River Reservation, Moapa, Nevada.

Introduction: Kleinfelder has prepared this Field Sampling Plan (FSP) for assessment activities to be conducted at Moapa Paiute Farm's Large Greenhouses, located on the Moapa River Reservation in Moapa, Nevada. The proposed assessment activities are being funded by the State of Nevada Brownfields program. This FSP was prepared in accordance with the Nevada Division of Environmental Protection (NDEP) Quality Assurance Program Plan (QA Program Plan) for the Nevada Brownfields Program (NBP) (NDEP 2007).

The purpose of the assessment activities is to evaluate the locations, condition, and quantity of suspect Category II non-friable asbestos-containing material (ACM) consisting of 3-foot high asbestos cement paneling (ACP) skirting installed around the exterior (ground level) of two greenhouses.

Project History: The subject property consists of approximately 2.5 acres in the southeast portion of Clark County Assessor Parcel Number (APN) 030-36-000-006. The subject property includes two large greenhouses, and is referred to as the Moapa Farm Large Greenhouses. Currently, neither of the large greenhouses is in use. During a previous NDEP Brownfield funded Phase I ESA conducted for an adjacent small greenhouse (Kleinfelder Document 117225.01/REN11R012), dated April 5, 2011, the presence of potential ACM, consisting of ACP skirting, was observed around the exterior (at ground level) of the adjacent small greenhouse and the two large greenhouses. The ACP around the small greenhouse has been previously sampled and found to be ACM. The Moapa Band of Paiute Indians is now seeking assistance to evaluate for the potential presence of asbestos at the large greenhouses and to address the safety concerns of its residents, prior to renovating the greenhouses.

Problem Statement: Suspect ACM has been observed on the exterior of the two large greenhouses. The Moapa Band of Paiute Indians is seeking assistance to address the safety concerns of its residents and to restore the greenhouses to a usable condition.

Kleinfelder will provide a State of Nevada certified Asbestos Abatement Consultant to conduct an asbestos survey of both large greenhouses. The survey will be conducted to assess the exterior suspect ACP and other potential ACM so that the Moapa Paiute Farm can renovate and retrofit both large greenhouses prior to re-occupancy, and to comply with the Hazardous Communications and Right to Know Act.

Background: The subject property consists of approximately 2.5 acres in the approximate southeast portion of Clark County Assessor Parcel Number (APN) 030-36-000-006. The subject property includes two large greenhouses, and is referred to as the Moapa Farm Large Greenhouses. The greenhouses are not currently in use.

Asbestos Survey

1. An Asbestos Hazard Emergency Response Act (AHERA) trained Asbestos Building Inspector that is accredited under the Nevada Occupational Safety and Health Administration (OSHA) as an Asbestos Abatement Consultant will conduct the asbestos survey. The location of the project site lies within the Moapa River Reservation, which is a “non-delegated” district, within Clark County, Nevada. Therefore, the survey will be completed in general accordance with the asbestos NESHAP regulation (40 CFR, Chapter 61, Subpart M) enforced by the U.S. Environmental Protection Agency (EPA) Region IX located in San Francisco, California as a guideline.
2. The survey will include a visual inspection and collection of an estimated total of six bulk samples of suspect ACM (ACP skirting installed around the exterior of both greenhouses) for submittal to an analytical laboratory for asbestos content. Survey activities will be performed in accordance with the attached site specific health and safety plan (HASP).
3. Samples will be analyzed for asbestos content by Polarized Light Microscopy (PLM) with dispersion staining techniques, as outlined in the EPA’s “Method for the Determination of Asbestos in Bulk Building Materials” (EPA/600/R-93/116, July 1993). The laboratory performing the analyses will be accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA). As required under EPA regulations, additional Point Count analysis may be performed to evaluate if a material is a regulated material with an asbestos content greater than 1 percent.
4. The sampling strategy will comply with the sampling protocol established under NESHAP (40 CFR Chapter 61, Subpart M). Samples will be handled with accepted procedures for the collection, packaging, chain-of-custody documentation and transport of bulk samples to the laboratory for analysis.
5. Suspect ACM will be visually inspected and classified as Category I non-friable ACM, Category II non-friable ACM or friable and regulated asbestos-containing material (RACM). Bulk samples of suspect ACM will be collected by spraying the

suspect material with amended water, where appropriate, removing a small portion of the material, and placing it into a laboratory provided or generic zip-lock plastic bag.

6. For each location sampled, the letter designation that follows the sample ID (ACM-001a) will be used to identify where the sample was collected. The approximate location of the sample will be marked on a map, drawing or sketch of the greenhouses.
7. All asbestos bulk samples will be sent to Fiberquant Analytical Services (Fiberquant) located in Phoenix, Arizona. Fiberquant is certified under the NVLAP.
8. Under section 61.145 (b) of the Asbestos NESHAP, written notification to EPA Region IX NESHAP Program, enforcement section is required at least 10-working days before the planned renovation/demolition activities. This notification applies to any demolition even if no ACMs are found within a building, and planned renovations that include removal of RACM greater than 160 square feet or 260 linear feet.
9. A final written report will be prepared by Kleinfelder that will include an evaluation of the information obtained from the asbestos survey. The report will include the following:
 - A description of the field activities, observations and sampling protocols;
 - Written description of locations, type, friability and condition of the assessed ACM;
 - Tabulated results of the sampling and analysis;
 - A map indicating building materials and ACM sample locations;
 - A description of applicable Federal, State and local regulations;
 - Recommendations (as necessary) on the abatement of the RACM, Category I, and Category II friable and non-friable ACM; and

- Laboratory analytical report, including the results of laboratory QA/QC.

Attachment: Site-Specific Health and Safety Plan



SITE-SPECIFIC HEALTH AND SAFETY PLAN

Project No.	<u>122785</u>	Date	<u>11-11-11</u>
Client	<u>NDEP</u>	Address	<u>Moapa River Indian Reservation Hwy 160, Nevada</u>
Site Contact	<u>William Anderson</u>	Site Phone No.	<u>702-865-2787</u>

Work Location Large greenhouses, Moapa River Reservation, Moapa, Nevada

Scope of Work

Kleinfelder personnel will follow the attached Job Safety Analysis (JSA) procedures to complete the fieldwork. Prior to site entry, all Kleinfelder field personnel must review this health and safety plan and scope of services detailed in the proposal.

Assess the presence of asbestos containing material (ACM) in and around two out-of-use greenhouses. The site consists of approximately 2.5 acres in the southeast portion of Clark County Assessor Parcel Number (APN) 030-36-000-006 on the Moapa River Indian Reservation

In the event of an emergency requiring immediate medical attention or evacuation to a hospital while on the reservation, contact the reservation medical facility Irene Benn Medical Center at (702) 865-2700 and provide the location on the reservation. Dispatch should route the call to the on-site emergency response unit. The location of the Irene Benn Medical Center is included. A map to the nearest of reservation hospital (Mesa View Regional Hospital at (702) 346-8040 is also included.

If the medical center is not available, call 911.

During the survey, if problems arise, the project's Project Manager, Joshua Fortmann will be contacted at (775) 689-7805, extension 109.

In the event of an emergency requiring immediate medical attention or evacuation to a hospital, contact 911.



KEY INDIVIDUALS

Project Manager Joshua Fortmann

Prepared by Daniel Burns **Reviewer/ Approver** Phil Tousignant

Emergency Hospital/Clinic Irene Benn Med Center / Mesa View Regional Hospital

Phone No. 702-865-2700 / 702-346-8040

Address 10 Lincoln Street, Moapa / 1299 Bertha Howe Avenue, Mesquite Nevada (Exit 120)

Paramedic 911 **Fire Dept.** 911 **Police Dept.** 911

Emergency/Contingency Plans

Stop work and evaluate the situation. If necessary, call 911 to request emergency assistance. Do not move victim(s) unless there is a life-threatening situation. Apply first aid to stabilize victim(s) while awaiting assistance. If injuries do not require emergency medical attention, refer to the attached written directions and map to the hospital or Medical locations.

Notify the Project Manager. The Project Manager will notify the Client and appropriate personnel for the situation.

15 Minute Eyewash Site Control Measures Not Required **Fire Extinguisher** Required **First Aid Kit** Required

Kleinfelder personnel will wear personal protective equipment appropriate to the work being undertaken.

CHEMICAL HAZARDS

Chemical Name (CAS#)	Expected Concentration	Health Hazards
Asbestos sampling will be conducted, resulting in potential for inhalation hazard. During sampling of materials for asbestos testing, personal protective equipment will require modified Level C protection, consisting of an air purifying respirator and gloves for the asbestos sampling personnel.		
Further evaluation may require modifying the Level of Protection, listed in Personal Protective Equipment Section below.		

PHYSICAL HAZARDS

<input checked="" type="checkbox"/> Heat	<input checked="" type="checkbox"/> Slip, Trip, Fall	<input type="checkbox"/> Excavations/Trench
<input type="checkbox"/> Cold	<input checked="" type="checkbox"/> Electrical Hazards	<input type="checkbox"/> Moving Equipment
<input checked="" type="checkbox"/> Wet	<input type="checkbox"/> Underground Hazards	<input type="checkbox"/> Confined Space
<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Overhead Hazards	
<input checked="" type="checkbox"/> Other		
<u>Biological (snakes, insects)</u>		

PERSONAL PROTECTIVE EQUIPMENT

R = Required

A = As Needed

<input type="checkbox"/> Hard Hat	Safety Eye gear: <u>glasses</u>	
<input checked="" type="checkbox"/> Safety Boots	<input checked="" type="checkbox"/> Respirator (Type): Full-face Organic Vap.	Half-face Acid gas <input checked="" type="checkbox"/> HEPA <input checked="" type="checkbox"/>
<input type="checkbox"/> Orange Vest	<input type="checkbox"/> Filter (Type):	
<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Gloves (Leather): Neoprene	<input type="checkbox"/> PVC <input type="checkbox"/> Nitrile
<input type="checkbox"/> Tyvek Coveralls	<input checked="" type="checkbox"/> Other <u>Clothing appropriate for hot weather conditions</u>	

MONITORING EQUIPMENT

<input type="checkbox"/> Organic Vapor Analyzer (FID)	<input type="checkbox"/> PID with lamp of Detector Tube (specify)	<input type="checkbox"/>
<input type="checkbox"/> Oxygen Meter	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Combustible Gas Meter	<input type="checkbox"/> Passive Dosimeter	
<input type="checkbox"/> H2S Meter	<input type="checkbox"/> Air Sampling Pump	

Route and Map to Hospital (Emergency)

If access to the Moapa Paiute Reservation Medical Center is not permitted to non-Tribal personnel, the nearest off Reservation Hospital with emergency service is

Mesa View Regional Hospital
1299 Bertha Howe Avenue
Mesquite, NV 89027
Exit 120
(702) 346-8040

From the work area,
Proceed **north on Greenhouse Road** for approximately 1 mile
Turn right on Lincoln Street for approximately 0.7 miles
Turn left onto Reservation Road for approximately 1.75 miles
to Nevada Highway 168
turn right onto NV 168 for approximately 4 miles
to US Interstate 15 (I-15)
turn left on I-15 for approximately 29 miles
to Mesquite Boulevard/Falcon Ridge Parkway Exit (Exit 120)
Turn left onto Mesquite Boulevard for approximately 0.5 miles
Mesquite Boulevard becomes Falcon Ridge Pkwy
Turn left Bertha Howe Avenue
The Hospital is on the right

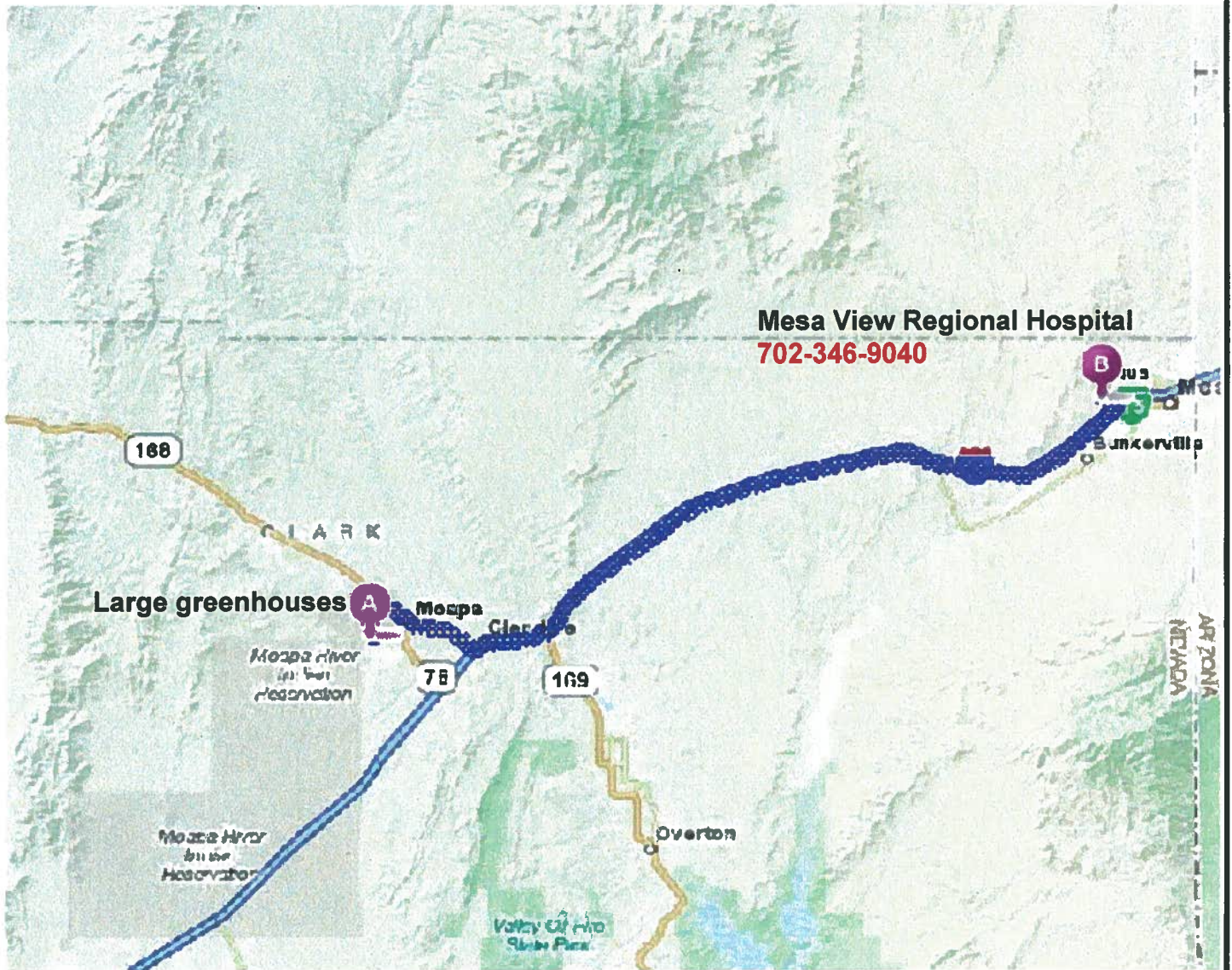
The hospital is shown on Plate 1.

If so directed by emergency response, the Reservation Medical Center is shown on Plate 2.

Irene Benn Medical Center
10 Lincoln Street
Moapa, Nevada
(702) 865-2700

From the work area,
Proceed **north on Paqaroonsy** for approximately 0.6 miles
turn left onto Lincoln Street for approximately 0.3 miles
the Medical Center is on the right.

The Medical Center is shown on Plate 2




Mesa View Regional Hospital
702-346-9040

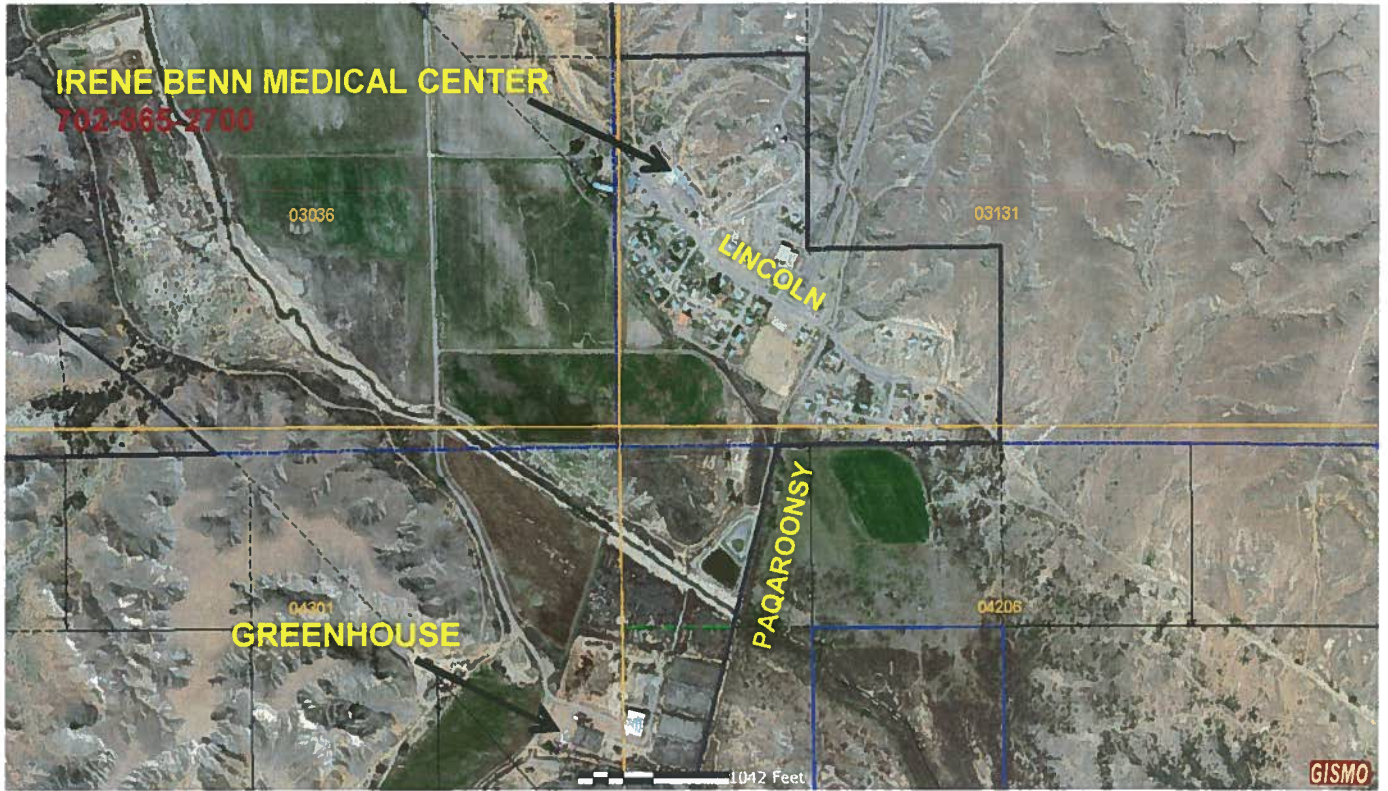
Large greenhouses **A**



Map Source:
 MapQuest


Original in Color

 <p>KLEINFELDER 6380 South Polaris Avenue Las Vegas, Nevada 89118 Ph. (702) 736-2936 Fax. (702) 361-9094</p>	ROUTE TO OFF RESERVATION HOSPITAL		1
	<p>Mesa View Regional Hospital 702-346-8040 1299 Bertha Howe Avenue, Mesquite Nevada (Exit 120)</p>		
<p>Drawn by: PJT Checked by: DD Date 11-1-11</p>	<p>PROJECT NO.: 122785</p>		



Original in Color

Source:
 Clark County Nevada
 OpenWeb Info Mapper
 Aerial Photograph
 Fall 2011

 KLEINFELDER 6380 South Polaris Avenue Las Vegas, Nevada 89118 Ph. (702) 736-2936 Fax. (702) 361-9094	ROUTE TO ON-RESERVATION MEDICAL CENTER	
	IRENE BENN MEDICAL CENTER (702) 865-2700 MOAPA, NEVADA	2
Drawn by: PJT Checked by: DD Date 11-1-11	PROJECT NO.: 122785	



Job Loss Analysis

Job Task		Driving (Streets and Highways)	
Publish Date:	June 12, 2007	Origination Date:	June 12, 2007
Group		Category	
Development Team:	Alex Hildebrand, Ryan Merkley, Jen Grippa	Latest Review Team:	James Grippa Southwest DSM, Sean Pritchard Pacific DSM, Stephen Coffee Central DSM
Minimum Required Equipment (check all that apply)			
Reflective Vest	<input type="checkbox"/>	Supplied Air Respirator	<input checked="" type="checkbox"/>
Hard Hat	<input type="checkbox"/>	Air Purifying Respirator	<input type="checkbox"/>
Steel Toed Boots	<input type="checkbox"/>	Protective Clothing	<input type="checkbox"/>
Safety Glasses	<input type="checkbox"/>	Gloves	<input type="checkbox"/>
Job Steps		Risks/Hazards	
Walk-around inspection (Safety Check) Enter vehicle and prepare to operate		<p>Identify, remove, or adjust for any obstacles that may impede moving the vehicle; secure any loose items.</p> <p>Verify tires are properly inflated and tread wear is within tolerances (+1/16th inch). Tip: Place a penny with Lincoln's head pointed to tire. If the entire head shows, tire replacement is warranted or check for wear bars that are not level with tire surface.</p> <p>Verify lights and lens covers are intact; confirm operation of horn, lights, and instrument panel.</p> <p>Check for any body damage that may affect drivability of vehicle. If abnormalities are discovered, report immediately to staff responsible for vehicle maintenance/management.</p> <p>Check that vehicle has valid current plates, registration, and insurance documentation.</p> <p>Seat belt must be fastened whenever operating vehicle.</p> <p>Adjust seat and mirrors so driver is able to effectively check the outside of the vehicle from the driver's position (using windows/mirrors looking behind or over the shoulder).</p> <p>Including climate controls, radio, windshield wipers and washers, and cruise control. Driver should be able to easily reach and manipulate all controls of the vehicle.</p> <p>Verify the vehicle is in a neutral position and emergency (parking) brake is applied before starting (this decreases the likelihood of vehicle movement when engine is started).</p> <p>Monitor vehicle for sounds from engine or abnormal gauge readings.</p> <p>If abnormalities are discovered, remove vehicle from service until reported to and addressed by staff responsible for vehicle maintenance/management.</p>	
Vehicle starting sequence		<p>Damage to vehicle</p> <p>Possible equipment failure</p> <p>Unsafe vehicle operation</p> <p>Operating citation by law enforcement for unlawful operation of defective vehicle</p>	
Unintended vehicle movement could result in injury and/or property damage.		<p>Unintended vehicle movement could result in injury and/or property damage.</p> <p>Faulty systems performance</p>	



Job Loss Analysis

Driving (Streets and Highways)	
Job Task	Origination Date:
	June 12, 2007
<p>Initiate driving sequence</p>	<p>Property damage due to striking obstructions</p> <p>Faulty systems performance</p> <p>Unintended vehicle movement could result in injury and/or property damage</p>
<p>During driving sequence</p>	<p>Death or injury to self or other drivers due to negligent, erratic, or inattentive actions</p> <p>Property damage due to negligent, erratic, or inattentive actions</p> <p>Operating citation by law enforcement for failure to adhere to traffic laws</p>

- Check surroundings to be certain vehicle movement is not obstructed.
- Apply brake before releasing emergency (parking) brake prior to engaging transmission to maintain control of vehicle.
- Proceed cautiously to prohibit lurching start and to feel/listen for faulty systems performance.
- Telegraph lane change with signals (hand or turn signals) to enter traffic stream.
- Operate vehicle consistent with traffic laws.
- Avoid distractions (such as cellular phone use or music-related distractions) to more easily focus on the task of driving.
- Utilize turn signals in accordance with local regulations and traffic laws.
- Regularly check mirrors for awareness of surrounding conditions. Check every 5 to 8 seconds as a rule of thumb. Consistently "scan the road ahead".
- Maintain a "cushion of safety" in the front, sides, and rear of vehicle while operating. Utilize the "4 second rule" for following other vehicles.
- Look over shoulders when changing lanes. Be aware of blind spots.
- Approach intersections cautiously. Cover brake pedal when approaching "stale" green lights. Come to a complete stop at stop signs and red lights.
- Yield to pedestrians, bicycles, and vehicles with right of way.
- Check for opposing traffic when starting from a stopped position.
- Drive with both hands on the steering wheel (at the 9 and 3 o'clock positions).
- Maintain speed within posted speed limits.
- Adjust speeds and account for stopping distances as appropriate for driving conditions or approaching challenging roadway alignments.
- Maintain a clear view through windshield at all times. Use window washer, or stop and clear as necessary.
- Do not operate the vehicle in an aggressive manner. Do not change lanes rapidly or frequently and do not tailgate vehicle in front of you. Always maintain a calm disposition and be courteous to traffic around you.
- Be aware of other drivers exhibiting signs of "road rage" around you. If you observe signs of road rage, slow down the vehicle and allow time for that driver to increase their distance ahead of you. Some states have procedures to allow drivers to report other drivers who drive overly aggressive.
- Consistently use LPSA tool to account for conditions and external



Job Loss Analysis

Job Task	
Driving (Streets and Highways)	June 12, 2007
Publication Date:	June 12, 2007



Job Loss Analysis

Job Task		Fieldwork in Areas with Biological Hazards	
Publish Date:	February 4, 2008	Origination Date:	February 4, 2008
Group	Category		
Development Team:	Latest Review Team:		
Steve Siegel, Phil Tousignant, Melissa Sherman			
Minimum Required Equipment (check all that apply)			
Reflective Vest	<input type="checkbox"/>	Supplied Air Respirator	<input checked="" type="checkbox"/> Other: <input type="checkbox"/>
Hard Hat	<input type="checkbox"/>	Air Purifying Respirator	<input checked="" type="checkbox"/> Other: <input type="checkbox"/>
Steel Toed Boots	<input checked="" type="checkbox"/>	Protective Clothing	Material: Long Sleeve shirt, pants
X Safety Glasses	<input checked="" type="checkbox"/>	Gloves	Material: leather, canvas
		Client Specific: <input type="checkbox"/>	
Risks/Hazards			
Working at a site with the potential presence for:			
INJURIOUS INSECTS/SPIDERS (i.e. ticks, mosquitos, chiggers, bees, wasps, spiders, lice, fleas, scorpions, fire ants)	Bites, stings, allergic reactions, viruses, diseases, infections	PPE - long sleeve shirt, pants, gloves, insect repellent, bug nets 1. Become familiar with insects/arachnids present in area 2. Avoid high concentration areas, hives, nests 3. Use insect repellents containing DEET 4. Look before sitting or placing hands to avoid contact 5. Perform self-check when leaving field to detect insects	
VENOMOUS SNAKES/REPTILES	Bites, bodily injury, loss of limb, shock, circulatory and respiratory problems, infection	PPE - long sleeve shirt, thick material pants or snake gators, gloves 1. Use buddy system 2. Become familiar with snakes and reptiles present in area 3. Be able to ID snake or reptile 4. Avoid high grasses, debris piles, rock outcrops, burrows if possible 5. Have HASP with Emergency Action Plan, means of communication 6. Don't provoke snake, don't handle, stay body distance away	
WILD ANIMALS	Bites, viruses, diseases, infections, serious bodily injury	PPE - protective clothing, gloves 1. Avoid handling and contact with dead or alive wild animals 2. Do not provoke animals 3. Do not place hands where you cannot see 4. Do not leave food around work site 5. Use buddy system 6. Avoid closed areas/dust with fecal mater and urine from rodents	
POISONOUS/SPINED PLANTS (i.e. poison oak, water hemlock, poison hemlock, poison ivy, poison sumac, stinging nettle, spined plants)	Rash, skin irritation, eruptions, allergic reaction, vision impairment, punctures, spines implanted	PPE - long sleeve shirt, pants, gloves, Tecnu protectant, face shield or goggles, ankle high boots with good traction 1. Become familiar with poisonous plants present in area 2. Be Alert - Avoid contact with all parts of suspect plants 3. Avoid contact with contaminated clothing - wash in detergent 4. Don't touch eyes, nose or mouth if suspect contact 5. Wash skin with Tecnu wash or soap and cold water after fieldwork 6. Don't eat any plant in the wild	



Job Loss Analysis

Job Task		Fieldwork in Areas with Biological Hazards	
Publish Date:	February 4, 2008	Origination Date:	February 4, 2008
STREAMS, RIVERS, SURFACE WATER	Waterborn diseases, parasitic diseases, serious illness	1. Always bring fresh potable water for fieldwork 2. Don't drink untreated water from surface water sources 3. Always treat cuts and other wounds, avoid contact with water	
Document Task Activity	Unable to prove through records that task performed as required	Complete task documentation legibly and in a timely manner	
Personnel trained/certified/qualified to perform task	Work is invalid as performed by person not trained/certified/qualified to perform task	Ensure have the correct certification and training to perform the assigned task	
Perform task according to approved plan/procedure	Perform wrong test/job function Miss a step or make a mistake while performing activity	Review work plan or other directing document before performing task Have copy of procedure/standard available while performing task	



Job Loss Analysis

Job Task		Sample Collection	
Publish Date:	April 6, 2007	Origination Date:	February 8, 2007
Group	Environmental	Category	Sampling
Development Team:	Simon Gillison, Russ Grantfors, Ryan Eberle	Latest Review Team:	Gretchen Thach
Minimum Required Equipment (check all that apply)			
<input checked="" type="checkbox"/> Reflective Vest	Goggles	Supplied Air Respirator	Other:
<input checked="" type="checkbox"/> Hard Hat	Face Shield	Air Purifying Respirator	Cartridge:
<input checked="" type="checkbox"/> Steel Toed Boots	Life/Harness	Protective Clothing	Material:
<input checked="" type="checkbox"/> Safety Glasses	Hearing Protection	X Gloves	Material: Nitrile
Job Steps			
Risks/Hazards			
Collect samples	Slips, trips, falls		Quality/Safe Work Practices Pick-up any debris, equipment, or tools in the work area.
	Contact with overhead hazards		Step around site with caution, as some trip hazards cannot be removed.
	Pinch points and lacerations		Wear hardhat where overhead obstructions are present.
	Heavy lifting and muscle strains		Watch placement of hands and fingers when collecting samples.
	Lose track of physical sample		Use appropriate tools when collecting samples.
	Incomplete sample record		Get assistance when moving heavy objects greater than 25 pounds (two or more people).
	Unable to prove through records that task performed as required		Write the sample number and project number on the sample or sample container
	Work is invalid as performed by person not trained/certified/qualified to perform task		Complete the sample custody document legibly at time of sample collection
	Perform wrong test/job function		Complete task documentation legibly and in a timely manner
	Miss a step or make a mistake while performing activity		Ensure have the correct certification and training to perform the assigned task
			Review work plan or other directing document before performing task
			Have copy of procedure/standard available while performing task

KLEINFELDER

Job Safety Analysis

Job Task Asbestos Building Inspection		Date: _____ Date Created: <u>May 8, 2007</u> Revision Date: _____
Office location: Denver	Group Environmental	Category Building Investigation
Development Team: Alex Becker	Review Team:	
Minimum Required Personal Protective Equipment (check all that apply)		
<input checked="" type="checkbox"/> Reflective Vest <input checked="" type="checkbox"/> Hard Hat <input type="checkbox"/> Life/Harness <input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Goggles <input type="checkbox"/> Face Shield <input checked="" type="checkbox"/> Steel Toed Boots <input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Other: <u>second person</u> Cartridge: <u>purple (magenta)</u> Material: _____ Material: _____
Job Steps		
1. Arrival at correct site/building	Entering the wrong site or building	Safe Work Practices Have an accurate map before traveling to site. Confirm location and timing of the site inspection with the client/ site manager. Request an escort if possible. Double check map upon arrival.
2. Pre-job Health and Safety Meeting	See "General Site Activities", "Entering Vacant or Abandoned Buildings", and "Asbestos Building Inspection" JSAs	All employees assigned to this task will attend a pre-job health and safety meeting, which include the pertinent JSA(s), Site Safety Procedures Manual, types of potential hazards, and actual hazards present and controls for those hazards. Select proper PPE for the task and site conditions. Wear a reflective vest, hard-hat, safety glasses and steel toed shoes on active construction sites. Follow specific facility PPE requirements if they exist.
3. Entry into the building	Unauthorized persons within site buildings (possibly under the influence of drugs or alcohol), presenting physical threat in vacant buildings.	Inform office staff of destination prior to travelling to site. DO NOT ENTER THE BUILDING IF SUSPICIOUS PERSONS ARE OBSERVED!! Make your presence known by loud noises and observing the exterior of the building prior to entry. Have a partner along for security. Check the entire building before conducting work.
4. Inspection/Assessment of Building	Poor structural integrity of building, overhead hazards, slip, trip, and fall, sharp objects. Insect or vermin bites and attack	Walk into building only where the building is structurally sound. Do not walk across areas where the surface is obscured by debris. Note the presence of spider webs, droppings, nests, scratchings, or other signs of insect or animal activity. Stay clear of areas of noted activity. DO NOT CORNER RODENTS OR OTHER ANIMALS - NEVER BLOCK THEIR ESCAPE ROUTE! Clear spider webs before entering an area. Do not enter areas with heavy amounts of spider webs, animal droppings, or nests. Visually inspect entry area of the room or building before entering - including overhead areas.

KLEINFELDER

Job Safety Analysis

Asbestos Building Inspection

Office location: Denver		Date: _____		Date Created: May 8, 2007
		Revision Date: _____		
Job Task	Category	Group	Environmental	Building Investigation
			Biological hazards (virus, contagions)	Note the presence of droppings, dirty or soil clothes, needles, illicit drug use. Wear steel-toed boots and do not walk upon questionable items. Do not walk upon soft items, as they may be covering unseen hazards. Wear appropriate gloves for the work conducted. Wash possibly affected body areas with a disinfecting wipe upon exiting the building and before entering the vehicle. Wear respirator if appropriate.
5. Working with Hand Tools	Misuse of hand tools could result in slips, trips, falls, abrasions, eye injuries and other common injuries.			Ensure proper training has been conducted prior to using a piece of equipment. Ensure proper inspection of said equipment prior to use. Mark all faulty equipment with red tag and remove from service.
	Hand abrasion, lacerations			Wear gloves appropriate to task - leather gloves for general tasks, nitrile gloves when handling contaminated materials, and Kevlar gloves when handling sharp/jagged objects.
6. Working in a confined space	Toxic, flammable, oxygen-deficient atmospheres; engulfment, entrapment, other general hazards associated with confined spaces.			Refer to Confined Space JSA.
7. Working with ladders	slips, trips, and falls			Ensure proper training has been conducted prior to using a ladder. Ensure proper inspection of ladder prior to use. Mark all faulty ladders with red tag and remove from service. Place the ladder according to manufacturer's specification prior to climbing the ladder. Ensure three-point contact at all times. Do not stand on the top rung.
8. Collecting asbestos samples	exposure to asbestos			Wet the sampling area prior to sample collection.