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**Project Safety, Health, and Environmental Action Plan
YANKEE CANYON COUNTY ROAD A-25 SUBSIDENCE MITIGATION**

Submitted to
**Abandoned Mine Land Program
Mining and Minerals Division
State of New Mexico, Energy, Minerals and
Natural Resources Department**

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1.0 EXECUTIVE SUMMARY

Harrison Western Construction Company (HW) has been contracted to complete the Yankee Canyon County Road A-25 Subsidence Mitigation Project by the Abandoned Mine Land Program of the State of New Mexico, Energy, Minerals, and Natural Resources Department (AML). This project includes advancing 42 drilled boreholes along approximately 810 feet of the road alignment to support the underground mine workings, at depths ranging from 20 to 100 feet. Approximately 3000 linear feet of drilling, 1,400 linear feet of casing, and 460 cubic yards of grout are expected. The contractor will hand seed and mulch 0.25 acre of disturbed and staging areas.

The intention of this Project Safety, Health, & Environmental Action Plan (SHEAP) is to supplement HW's existing Health and Safety Manual with project specific information outlined in the Standard Specifications.

2.0 PROJECT INFORMATION

Site:

Yankee Canyon County Road A-25, Colfax County, New Mexico

Project Owner:

Abandoned Mine Land Program Mining & Minerals Division State of New Mexico, Energy, Minerals, and Natural Resources Department

Location:

9 miles northeast of Raton in Colfax County, New Mexico

Contractor Performing Work:

Harrison Western Construction Corporation
1208 Quail St.
Lakewood, CO 80215
(303) 234-0273

Closest Medical Facilities:

Miners' Colfax Medical Center
203 Hospital Drive
Raton, NM 87740
(575) 445-3661

Union County General Hospital
300 Wilson Street
Clayton, NM 88415
(575) 374-2585

Closest Fire Station

Raton Fire Department
127 Clark Avenue
Raton, NM 87740
(575) 445-2708

3.0 SITE ACCESS AND TRAINING REQUIREMENTS

The county road A-25 subsidence area can be accessed by traveling east from the highway 2/25 interchange for 3.68 miles until the junction of highway 526 and highway 72. turn right to stay on highway 72 and travel 2.82 miles on highway 72 to county road a-27. turn slight left onto county road a-27, and travel 1.61 miles on county road a-27 to a junction with county road a-25. turn slight left onto county road a-25, and travel 1.05 miles, up the switch backs, along county road a-25 to a switch back below the A-25 subsidence features. Immediate work areas will be fenced off prior to beginning work where necessary (to be determined by field supervisors).

Prior to entry to immediate work areas, personnel are required to receive training on the Project Safety, Health, & Environmental Action Plan. All equipment must have functioning safety devices (seatbelts, backup alarms, etc. as applicable) and be inspected prior to entering the immediate work area.

4.0 SUBSTANCE ABUSE SCREENING

Substance abuse screenings will be performed in accordance with HW's Health and Safety Manual. Drugs and alcohol are not permitted on site.

5.0 HAZARD IDENTIFICATION

During operations, HW's field supervisors shall be responsible for safety and health at the work site with assistance from HW's Safety Manager. Weekly Tool-Box meetings will be held with all employees at the work site, the topic of which will be coordinated with the field supervisors and HW's Safety Manager. Attendance of these meetings will be documented, including the date, subject matter, and participants signatures.

Prior to the start of work on any day, a Safe Work Plan will be generated by HW personnel to document hazards and mitigations for the expected tasks. Changes in tasks throughout the day require that additional safe work plans or revisions to the Safe Work Plan be generated and reviewed by all personnel affected. Personnel entering a work area are required to review and sign in on safe work plans prior to entering the area and starting work.

6.0 SAFE PRACTICES

The minimum jobsite required Personal Protective Equipment (PPE) for all personnel include:

- Safety Glasses
- Steel Toe Boots
- Hard Hats
- Hi-Vis Vests or Shirts

Other required PPE that are task specific include, but are not limited to:

- Face shields and safety glasses or goggles when work generates flying debris

- Multi-gas meters during drilling operations work. These must be recently calibrated with an audible alarm. Records of gas testing will be kept on site for reference by HW's supervisor.
- Rubber boots or waders when working in wet conditions
- Kestrel, or similar, temperature and heat index monitor

7.0 EMERGENCY AND ACCIDENT RESPONSE

All accidents and injuries will be reported to HW's Safety Manager and the New Mexico AML project manager, Braden Belliveau as soon as possible. Following reportable occurrences, HW will investigate the occurrence and develop an action plan to prevent such occurrences from happening again. These investigations and their outcome will be documented.

Per site meetings a group text message will be set up to include county staff, project staff and land owners. This text message chain will allow for clear communication between parties in the case of an emergency on site or nearby.

8.0 FIRST AID

First aid kits will meet OSHA requirements and will be maintained in a clearly communicated area. Personnel will be trained on the location of these up on initial arrival to the work area.

9.0 COMMUNICATION PROCEDURES

Work areas are generally visually open spaces. Communication between personnel can be maintained by eyesight and hand signals. Radios may be used if eyesight cannot be maintained. In general, all communications should be positive, requiring a response to verify receipt.

10.0 EQUIPMENT OPERATIONS

Equipment use and inspections will be performed in accordance with HW's Health and Safety Manual. All mobile equipment will be equipped with at least 1 fire extinguisher. *Section 16.0 HW Health and Safety Manual*

Spotters, when necessary, will be provided a radio to communicate with operators.

While working on equipment, it will be secured to ensure there is no mechanical potential prior to the start of work on the equipment.

Pre-use inspections will ensure that hydraulic and pneumatic hoses are in good conditions, and that whip checks are installed and functional prior to their use.

Any boreholes that remain overnight will be protected and marked.

11.0 ELECTRICAL SAFETY

Electrical Safety and Lockout-Tagout procedures will be performed in accordance with HW's Health and Safety Manual. *Section 30.0 HW Health and Safety Manual*

12.0 SAFETY DATA SHEETS (SDS)

Safety Data Sheets will be kept on file in the job site trailer.

13.0 HAZARD CONTROLS

Sanitation Facilities

Throughout the duration of the project, sanitation facilities will be provided for personnel, including a bathroom and a potable water source.

Inhalation Hazards

Inhalation hazards will be mitigated through the following controls:

Dust: Water may be applied to soil piles during windy conditions to reduce dust from entering the work area.

Gases: Gas monitoring during drilling. If alarms indicate gases above exposure/accumulation limits are present at the work area, personnel will evacuate the area. Muster area to be determined on daily Safe Work Plan.

Vapors/Solvents: Gas cans and other chemical storage containers will remain closed until they are intended for use. When stored, these will be within a fire box on site.

Paint: Spray paints are only allowed for use outdoors. Lead and chromate paint are prohibited.

Engine Exhaust: Engines will only be allowed for use outdoors.

Oxygen Deficiency: All operations are intended outdoors. Gas monitoring will include oxygen.

Welding Fumes: Welding is only allowed for use outdoors.

During batching of grout, personnel are required to use respirators while handling cement products to prevent inhalation during mixing.

14.0 ENVIRONMENTAL: LIQUID WASTE

Pending approval and at EMNRD's direction, offsite migration of sediments and material spills may implement silt fencing and straw waddles. Dependent on the type of material, other measures

(such as berming and barricading) may be implemented to prevent offsite migration. The storage of fuels, oils, and other fluids will implement a secondary containment. This may include tarped areas outside of barrels, double walled fuel tanks, or other secondary containment measures.

Should vehicle maintenance or other tasks that require fluids be drained at the worksite, these fluids will be drained into appropriate containers until they can be inserted into clearly marked DOT containers. Fluids will not be allowed to drain onto the ground, and refueling of equipment is not allowed on topsoil.

In the case of accidental spills, spill kits, cat litter, or other absorbents will be applied to the affected area. These absorbents will be transported into proper containers to a proper facility for offsite disposal.

15.0 ENVIRONMENTAL: SOLID, NON-HAZARDOUS WASTES

Site wastes, such as excess materials and debris, that are considered non-hazardous shall be disposed of in containers clearly marked "TRASH". These containers must be always covered to prevent wind-blown litter and removed from site on a daily basis.

Non-hazardous wastes must be segregated from hazardous wastes. If non-hazardous wastes are contaminated by hazardous materials, discretion by field supervision to their proper handling will be maintained. This may include cleaning off hazardous materials if applicable, or disposing of the waste in accordance with "Environmental: Hazardous Wastes" section of the SHEAP. All disposal activities will comply with federal and state regulations.

16.0 ENVIRONMENTAL: HAZARDOUS WASTES

HW generated wastes such as equipment/machine oils, fuels, oily debris, residue paints, solvents, and containers containing the same, shall be cleaned and disposed of in compliance with local, state, and federal regulations. Disposal containers will have HW's name clearly marked on it.

Wastes such as aerosol cans, oily rags, solvents, and waste lubricants will be segregated into marked containers. All drums will be stored in an upright position, on pallets or similar devices to facilitate observation for leaks, corrosion and damage. This waste storage will be within the staging areas until full and then disposed of, off site.

Safety Data Sheets for all products used on site will be kept at site and be submitted to EMNRD's for approval prior to arriving on site.

17.0 FIRE PROTECTION

Fire Prevention and Response will be performed in accordance with HW's Health and Safety Manual. *Section 19.0 HW Health and Safety Manual*

Pending EMNRD's approval, fire response will be as follows:

During any hot work a policy will be implemented to wet down the surrounding area with water to help mitigate the fire risk.

Hot work will cease with consistent wind speeds greater than 35 miles per hour.

For small, manageable fires, personnel will implement the appropriate fire extinguisher (ABC) for the type of fire. Nearby equipment and materials, if safe to do so, will be removed from the area to prevent any further spreading of fires. After the fire has been extinguished, fire watch will be implemented for a minimum of 30 minutes to verify no reignition will occur.

For larger fires, fires that cannot be extinguished with reasonable efforts, or fires that pose potential to spread rapidly, personnel will evacuate the area and gather at muster points. Emergency services will be contacted, and supervisors will do a roll call to verify no personnel remain in the area. Additionally, a text will be sent out to the Emergency Notification List to notify of a potentially dangerous situation.

In the event of any fire emergency, immediately notify HW's Safety Manager. The project information above includes the closest fire station to the jobsite with direct contact information. In case of an emergency, call 911.

All mobile equipment will be equipped with fire extinguishers (ABC) and supplied in areas where hot work is being performed as required by HW's Health and Safety Manual. Each work crew at a minimum will be supplied with 2 each 5-pound Class A fire extinguishers. Additionally, sharpened, round nose shovels will be available, 1 per crew member, and readily available for use should an uncontrolled ignition occur.

18.0 RESPONSIBLE PERSONS



David Reis
Project Manager
C (720) 552-0492
dreis@harwest.com

Scott Chest
Safety Manager
C (720) 607-7282
schest@harwest.com

19.0 EMERGENCY ACCESS DETAILS AND COMMUNICATION LIST

Throughout the duration of the project, emergency access for vehicles less than 10 feet in width will be ensured.

In the event of a fire or other emergency where access through the job-site is required by emergency vehicles larger than the 10 foot emergency vehicle access lane width, Colfax County will send out a mass text to the recipients listed on Table 1 Emergency Notification List. Table 1 may be updated throughout the project with Colfax Counties Emergency Management department if temporary substitution of on-site personnel is necessary. Upon receipt of a text from

Colfax County Emergency Services Harrison Western will immediately begin moving drilling or grouting equipment out of the roadway and to the closest of the three staging/pullout areas shown of Figure 1  

Harrison Western, with prompt notification, can ensure equipment is clear of the 10' emergency access path in less than the 30 minute response time required for Colfax County emergency vehicles.

Harrison Western will also station a 2,000 gallon water truck above the job site at a location determined by Colfax County Emergency Management to aid in firefighting if needed.

Table 1. Emergency Notification List		
Name	Title	Number
Braden Belliveau	AML Project Engineer	505-479-2698
Laurence D'Alessandro	AML Project Manager	505-469-0511
Leeland Murray	AML Project Manager	505-629-9677
Mattie Rufenacht	Trihydro Associate Engineer	719-329-8602
Dave Reis	HW Project Manager	720-552-0492
Cory Boyd	HW Superintendent	720-793-7467

