# CHAPTER 7

# BLASTING

CHAPTER 7

INDEX


| | Page |
|---|---|
| Introduction | 1 |
| Blasting Procedures | 1 |
| Blasting Limitations | 5 |
| Blasting Monitor Program | 6 |
| Airblast | 6 |
| Ground Vibration | 6 |
| Fly Rock | 8 |
| Blasting Schedule | 8 |
| Blasters | 9 |
| Blast Designs | 9 |
| Preblast Surveys | 9 |
| Blasting Signs, Warnings and Access Control | 11 |
| Records | 13 |
| Sketch of Drill Patterns | 15 |
| Shot Pattern Examples | 17 |


LIST OF FIGURES


| | | Page |
|---|---|---|
| Figure 1. | Blasting Statement | 14 |
| Figure 2. | Blasting Report | 16 |


LIST OF TABLES


| | | Page |
|---|---|---|
| Table 1. | Example Drill Hole Pattern Sizes Utilized at the Kayenta Mine (Anfo) | 2 |
| Table 1A. | Example Drill Hole Pattern Sizes Utilized at the Kayenta Mine (Emulsion) | 3 |
| Table 1B | Example Drill Hole Pattern Sizes Utilized for 9" Diameter Holes in Parting Material | 4 |
| Table 2. | Airblast Limits | 7 |


ATTACHMENTS


Attachment 1. Airblast Monitoring Result

Attachment 2. Blasting Schedule Notice

Attachment 3. Preblast Survey Notice

Attachment 4. Blasting Surveys

CHAPTER 7

INDEX

Attachment 5. Blast Monitoring Plan (see also Drawing No. 94700 in Volume 23)

Attachment 6. Pre-Blast Survey List (see also Drawing No. 94720 in Volume 23)

AUG 2011
APPROVED

# CHAPTER 7

# BLASTING

## Introduction

Prior to removal, the overburden and parting material must be fragmented to a size, which can be handled efficiently by excavation equipment. Likewise, the coal must be fragmented prior to loading of coal into haulage trucks for transport to transportation facilities. The majority of the fragmentation is accomplished by the use of explosives. When possible, thin partings and coal seams are fragmented by ripping with a ripper-equipped dozer. Ripping is typically limited to partings and coal seams less than three feet in thickness. The objective of this process is to provide fragmented overburden, parting material and coal ahead of excavation and loading equipment so that production is sufficient to satisfy coal supply obligations. In addition, "blast casting" methods will be utilized to assist the excavator in removal of overburden. Each major excavator is supported by a highwall overburden drill, parting drill, coal drill, ripper dozer and respective crews.

## Blasting Procedures

The procedures for drilling overburden and parting material are essentially the same. Vegetation is cleared from the undisturbed surface and useable topsoil is removed prior to drilling overburden. A drill hole pattern is determined on the basis of the thickness and physical characteristics of the material to be fragmented, the size of the excavator or loader and drill bit diameter. Examples of typical patterns are shown in Tables 1, 1A and 1B. Table 1B will be given to the drillers and pit bosses for reference. The burden and spacing of drill holes within typical patterns are contained in charts, which have been developed for the various conditions experienced at Kayenta Mine. Each lead drilling and shooting foreman has a copy of these charts.

Vertical or angle drilling is used at Kayenta Mine. A record of the number and depth of drill holes is kept by the driller (see Figures 1 and 2). Typically, the drilling operations stay ahead of excavators a sufficient distance to prepare enough material to meet production requirements.

Blasting crews consult drilling and loading charts referred to above to determine the approximate amount of explosive, stemming and decking required for the blasthole. The

# TABLE 1

## Example of Drill Hole Pattern Sizes Utilized at the Kayenta Mine (ANFO)

| DEPTH | ANFO PATTERN SIZE* |
|---|---|
| COAL: | |
| For 4-3/4" diameter hole: | |
| 3' - 11' | 9' X 9' |
| 12' - 15' | 9' X 12' |
| OVERBURDEN & PARTING | |
| For 5-7/8" diameter hole: | |
| 2' - 10' | 9' X 9' |
| 11' - 13' | 9' X 12' |
| 14' - 16' | 15' X 18' |
| Over 16' | 15' X 18' |
| For 9-0" diameter hole: | |
| 1' - 9' | 9' X 9' |
| 10' - 13' | 9' X 12' |
| 14' - 16' | 12' X 15' |
| 17' - 20' | 15' X 18' |
| 21' - 25' | 21' X 24' |
| For 10-5/8" diameter hole: | |
| 3' - 9- | 9' X 12' |
| 10' - 13' | 12' X 15' |
| 14' - 16' | 15' X 18' |
| 17' - 20' | 18' X 21' |
| 21' - 25' | 21' X 24' |
| Over 25' | 24' X 27' |
| For 12-1/4" diameter hole: | |
| 10' - 13' | 15' X 18' |
| 14' - 17' | 18' X 21' |
| 18' - 21' | 21' X 24' |
| 22' - 25' | 24' X 27' |
| 26' - 30' | 30' X 33' |
| Over 30' | 30' X 33' |

*Pattern size will vary with types of explosive material used, the material being fragmented, and the explosive manufacurer's recommendation.

Revised 11/10/2010

# TABLE 1A

## Example of Drill Hole Pattern Sizes Utilized at the Kayenta Mine (Emulsion)

| DEPTH | EMULSION PATTERN SIZE* |
|---|---|
| OVERBURDEN & PARTING | |
| For 5-7/8" diameter hole: | |
| 6' - 7' | 12' X 15' |
| 8' - 12' | 15' X 18' |
| 10' - 20' | 18' X 21' |
| For 9-0" diameter hole: | |
| 5' - 9' | 15' X 18' |
| 10' - 13' | 18' X 21' |
| 12' - 18' | 21' X 24' |
| 18' - 23' | 24' X 27' |
| 22' - 29' | 27' X 30' |
| 27' - 31' | 30' X 33' |
| 32' - 35' | 30' X 35' |
| For 10-5/8" diameter hole: | |
| 12' - 13' | 21' X 24' |
| 13' - 19' | 24' X 27' |
| 16' - 25' | 27' X 30' |
| 20' - 31' | 30' X 33' |
| 28' - 33' | 33' X 36' |
| 33' - 35' | 33' X 38' |
| 35' - 40' | 35' X 40' |
| For 12-1/4" diameter hole: | |
| 20' - 21' | 30' X 33' |
| 22' - 30' | 30' X 35' |
| 25' - 35' | 33' X 38' |
| 30' | 36' X 40' |
| 30' - 39' | 36' X 42' |
| 35' - 39' | 38' X 44' |
| 39' | 40' X 46' |

*Pattern size will vary with types of explosive material used, the material being fragmented, and the explosive manufacurer's recommendation.

Revised 11/10/2010



AUG 2011
APPROVED

TABLE 1B
Example Drill Hole Pattern Size
For 9" Diameter Holes In Parting Material

# SQUARE PATTERN LOADING CHART - 9" PARTING

| DEPTH | PATTERN | YARDAGE | RATIO | STEM | STEM BURDEN |
|---|---|---|---|---|---|
| 5 | 15 x 15 | 42 | 2.5 / 16# | 4.5 | 4.5 / 10.6 = .42 |
| 6 | 15 x 15 | 50 | 2.5 / 20# | 5.4 | 5.4 / 10.6 = .51 |
| 7 | 15 x 15 | 58 | 2.03 / 25# | 6.25 | 6.25 / 10.6 = .589 |
| 8 | 18 x 18 | 96 | 2.4 / 40# | 6.8 | 6.8 / 12.7 = .53 |
| 9 | 18 x 18 | 108 | 2.25 / 48# | 7.5 | 7.5 / 12.7 = .59 |
| 10 | 21 x 21 | 163 | 2.4 / 68# | 8.0 | 8 / 14.8 = .54 |
| 11 | 21 x 21 | 180 | 2.25 / 80# | 8.6 | 8.6 / 14.8 = .58 |
| 12 | 21 x 21 | 196 | 2.0 / 98# | 9.0 | 9 / 14.8 = .61 |
| 13 | 24 x 24 | 277 | 2.4 / 116# | 9.5 | 9.5 / 17 = .56 |
| 14 | 24 x 24 | 299 | 2.3 / 132# | 10.0 | 10 / 17 = .59 |
| 15 | 24 x 24 | 320 | 2.0 / 160# | 10.2 | 10.2 / 17 = .60 |
| 16 | 27 x 27 | 432 | 2.3 / 188# | 10.3 | 10.3 / 19 = .54 |
| 17 | 27 x 27 | 459 | 2.2 / 208# | 10.7 | 10.7 / 19 = .56 |
| 18 | 27 x 27 | 486 | 2.1 / 231# | 11.0 | 11 / 19 = .58 |
| 19 | 27 x 27 | 513 | 2.0 / 256# | 11.2 | 11.2 / 19 = .59 |

AUG 2011
APPROVED



Revised 06/07/99

The charts specify these parameters based upon blasthole diameter, depth, pattern size, and presence of cap rock.

Bulk prell or emulsified products are used in dry blastholes. High density bagged prell or emulsified products are used in wet holes. Primary detonation is by Ensin Bickford noiseless NONEL. Electric blasting caps and primer cord are used for special applications.

Cast blasting, as well as conventional blasting is conducted. Approximately 5 percent of the total material shot at Kayenta Mine is cast blasted. The design procedures for cast blasting are similar to those for conventional blasting. Since cast blsting may fragment and fracture recoverable coal seams more than conventional blasting, and since PWCC desires to maximize the recovery of the coal resource, additional blast planning is undertaken. To minimize adverse fracturing and fragmentation impacts, blasting decks are installed in blast holes that are to be cast blasted. The upper deck in the blast hole is delayed to discharge before the bottom deck in order to reduce the confinement of the fragmentation forces in the bottom of the hole and thereby reduce the impact upon the coal seam minimizing coal loss. The lower decks are typically loaded with substantially less weight of explosives than the upper deck. Due to variability of overburden and parting thickness, decking can occur at any depth. In addition to the stemming placed at the top of the blasthole, stemming-type backfill material is placed in the bottom of the holes to further reduce the effects upon the coal seam and minimize any overbreakage at the toe. When cast blasting is to be conducted above coal seams that have exhibited brittle characteristics, blast hole drilling is terminated before the coal seam is encountered in order to cushion the coal from the effects of blasting.

Coal drilling and blasting procedures are essentially the same as those described above relative to overburden and parting except that no cast blasting is performed. Dirt, rock, and other debris are removed from the exposed coal surface prior to drilling. Electric blasting caps are used to detonate the explosives.

Blasting Limitations

Please refer to Attachment 5, Blast Monitoring Plan, for airblast monitoring and reporting requirements.

Blasting Monitoring Program. Peabody operated a continuous ground vibration and air overpressure monitoring program from April 1994 until August 2011. The locations for the seismograph monitors and threshold trigger levels for the monitoring program were determined in consultation with OSM (see Drawing No. 94700). The trigger levels are 0.50 inches per second peak particle velocity and 132.6 dBL air overpressure. In accordance with 30 CFR 816.67(b)(i), the regulatory limit is 133dB. A detailed description of the current monitoring plan is presented in Attachment 5 "Blast Monitoring Plan".

Airblast. Electric blasting caps and noiseless NONEL detonating equipment are utilized to reduce air blast effects and noise. Airblast will not exceed the limits in Table 2 at the location of any dwelling, public building, school, church or community or institutional building except at such structures purchased by Peabody. Peabody's Kayenta Mine operation is located in a remote, sparsely populated area. Drawing No. 85100, Land Use Map and Drawing No. 94720, Preblast Survey Site Map, show the locations of structures and dwellings. Further, families who inhabit dwellings within the permit area are located at least one-half mile from blasting areas.

The result of the 1985 airblast monitoring conducted at Kayenta Mine may be found in Attachment 1. The monitoring took place on August 6, 1985 near the J-21 mining area. The dwelling was 3,120 feet from the blast site and the airblast measured 107dB. The applicable maximum level is 129 dB. The more recent results of the airblast monitoring are available for inspection at the mine site office.

Ground Vibration. Peabody will utilize the scale-distance equation given in 30 CFR 816.67(d)(3) to determine the allowable charge weight of explosives to be detonated in any 8-millisecond period. The blasting statement (Figure 1) includes information applicable to seismic monitoring. Please refer to Attachment 5, Blast Monitoring Plan, for vibration monitoring and reporting requirements.

TABLE 2

Airblast Limits

| Lower Frequency Limit of Measuring System, in Hz (±3dB) | Maximum Level in dB |
|---|---|
| 0.1 Hz or lower - Flat response | 134 peak |
| 2 Hz or lower - Flat response | 133 peak |
| 6 Hz or lower - Flat response | 129 peak |
| C - Weighted - Slow response | 105 dBC |

Fly Rock. Adequate stemming of the burden is loaded into blastholes prior to detonation to substantially reduce the occurrence of fly rock. Fly rock which may result from blasting operations will not be cast from the blasting site more than one-half the distance to the nearest dwelling or other occupied structure, beyond the area of control or beyond the permit boundary.

Blasting Schedule

The mining of multiple coal seams and the associated multiple pieces of excavation, loading, and hauling equipment require that the parting material and coal be removed in a strict sequence and timely fashion in order to maintain production, meet coal quality requirements, and maximize coal recovery. Essentially, all parting material and coal must be shot prior to removal. Therefore, blasting of these materials must occur as dictated by the mining plan.

Blasting will be conducted only between sunrise and sunset. Unscheduled blasts are conducted only where public or operator health and safety so require and for emergency blasting actions. When an unscheduled blast occurs, Peabody will document the reason for the unscheduled blast, as well as the conditions of health and safety or emergency that required the blast. This documentation shall be provided in the blasting statement, Figure 1.

Peabody publishes a blasting schedule in a newspaper having general circulation in the area in which Kayenta Mine is located. Additionally, blasting schedules are delivered to individuals living within one-half mile of the blasting area and to individuals requesting blasting schedules in the vicinity of the blasting area. The blasting schedule is published and distributed every twelve months and at least ten days but not more than 30 days before blasting whenever the area covered by the schedule changes or whenever periods for blasting significantly differ from the prior announcement. A copy of the typical blasting schedule and an affidavit of publication may be found in Attachment 2.

## Blasters

All blasting operations are conducted under the direct supervision of competent, trained and experienced personnel with proven work records who understand the hazards involved. Upon promulgation of a Federally-administered blaster certification program, Peabody implemented a certified blaster's program which complies with the requirements contained therein. During the entire drilling, blasting and detonation sequence, the qualified Blaster-in-Charge is solely responsible for directing the Company's employees in all aspects of the drilling, blasting and detonation sequence. Persons responsible for blasting operations at a blasting site are familiar with the blasting plan and applicable performance standards. Prior to the detonation, a Blaster-in-Charge and at least one other qualified person will be present at the firing of a blast. Additional qualified personnel will be present, if required, to visually inspect the potential blast area, and to monitor and control access in the potential blast area. The Blaster-in-Charge will be a certified blaster and his/her name and license number will be recorded on the blasting statement (see Figure 1).

## Blast Designs

No site specific blast designs have been included in this plan since Peabody does not anticipate blasting operations to be conducted within 1,000 feet of any building used as a dwelling, public building, school, church, or community or institutional building. Should this situation be expected to occur, a blast design will be developed and submitted to OSM for approval prior to the initiation of such blasting operations.

## Preblast Surveys

Kayenta Mine is an existing operation and blasting is being conducted within current mining areas. Therefore, the schedule for preblast surveys contained in 30 CFR 816.62 is not directly applicable as written. Peabody will discuss the application of preblast survey requirements to existing mining areas (J-19, J-21, and N-9) with OSM and agrees to negotiate a schedule of activities that will result in the conduct of preblast surveys for residents or owners of dwellings or other structures located

within one-half mile of these active mining areas where such surveys are requested and have not been previously conducted.

Peabody typically relocates residents to an agreed upon location that is more than one-half mile from any anticipated blasting, prior to blasting occurring within one-half mile of the residence. Negotiations with residents are conducted in advance of blasting activities, with direct assistance of Tribal representatives. Improvement assessments are conducted by local commercial assessors to determine an equitable valuation of structures in order to adequately compensate the resident for the relocation. Should relocation not occur, and blasting is to be conducted within one-half mile of the residence, blasting will be conducted in accordance with appropriate sections of this chapter.

Notification was made in writing on January 11, 1985 to all residents or owners of dwellings or other structures located within one-half mile of the J-21 permit area that blasting in that coal mining area would commence on February 13, 1985. A sample copy of the notification and acknowledgement may be found as Attachment 3. No request for surveys was received prior to the initiation of blasting. Peabody obtained written consents to perform blasting surveys from the owners of three dwellings in the vicinity of the J-21 permit area. These surveys were conducted on September 4, 1985. Two were conducted on structures, which were completed after initiation of blasting activities in the J-21 permit area. Since 1985, condition surveys of non-PWCC owned structures located on or within one-half mile of the mine permit areas have been offered to owners and/or residents of the structures as required in 30 CFR 816.62. One hundred ninety structures were inspected in 1994. New structures are offered condition surveys on a periodic basis. The inspections are on file with OSM and PWCC; copies of each inspection are supplied to each structure owner. Condition surveys consist of a written report and still photographs documenting the general condition of the structure inspected. Condition surveys are used for comparative purposes should a damage investigation be required. Drawing No. 94720, Preblast Survey Site Map, shows the location of the surveys and Attachment 6 lists current and historical resident locations.

Peabody will notify in writing at least 30 days before initiation of blasting in the J-19, J-21, and N-9 mining areas, all residents or owners of dwellings or other structures located within one-half mile of the blasting area how to request a preblasting survey.

Any surveys requested more than ten days before the planned initiation of blasting will be completed before blasting begins. Surveys will be performed upon written request. A written report will be prepared and a copy will be submitted to OSM and the person requesting the survey.

Blasting Signs, Warnings and Access Control

Blasting warning signs have been placed along the edge of the permit boundary, at points of access that could reasonably be expected to be used by the general public. In addition, around the perimeter of the blasting area, "Blasting Area" signs will be installed along the edge of any blasting area that comes within 100 feet of any public road right-of-way, and at the point where any other road provides access to the blasting area (area of potential flyrock hazard). Many roads entering or traversing the permit area and leasehold are "jeep trails" or light-use roads infrequently used by a very limited number of people and typically these roads will be barricaded, bermed, provided with a locked gate or any appropriate methods to prevent access where these roads enter the potential blast area. Prior to each blast, Peabody personnel will identify the road(s), which remain traversable into the potential blast area, inspect this road(s) and control access into the blast area during the detonation sequence. Blasting area signs are periodically moved to effectively delineate blasting areas. A description of the signs may be found in Chapter 25. The location of the blasting signs will change periodically as indicated above.

Audible warning and all clear signals are given prior to and following a blast, respectively. Warning and all clear signals are explained on the blasting warning signs, the signs located at the main entrances to the mining complex and on bulletin boards in certain buildings, which the general public may frequent. The signals are also explained in the blasting schedule, which is published and distributed as explained above.

Access to the blasting area is controlled by visual inspection and by insuring that all of the blasting area is clear of all livestock, or unauthorized persons. A qualified person, who is familiar with blasting and shooting procedures, is responsible to perform the visual inspection, assessing the presence of unauthorized humans, livestock and property, etc. in the potential blasting area and to block and monitor access, or barricading roads leading into the blasting area. It is Company Policy for all non-Pit Operations personnel to contact the Pit Supervisor, Dragline Operator or the Blaster-in-

Charge prior to entering the Pit area and potential blast area. Once a person is within the potential blast area, this person will continually monitor only the Operation's radio channel frequency applicable to this Pit area. This radio channel frequency will be utilized for all communications during the blasting sequence, so that all company radios are tuned to the proper channel when persons are in the potential blasting area. Fluorescent orange traffic cones and plastic tapes are used to identify blasting areas in which holes have been loaded, charged, and not yet detonated. Boreholes are not considered charged until a surface detonator is introduced into the initiation system. The all clear signal is given only after the potential blast area has been checked to insure that no unusual hazards such as slides or undetonated charges exist.

During the entire drilling, blasting and detonation sequence, the qualified Blaster-in-Charge is solely responsible for directing the Company's employees in all aspects of the drilling, blasting and detonation sequence. When an area is ready to blast, the Blaster-in-Charge will inspect the site. The Blaster-in-Charge will then request the assistance of the appropriate qualified Company employees (i.e. Blockers) to visually inspect the potential blast area and to block and monitor access. The Blaster-in-Charge will inspect the proposed blast area to verify the blast area is clear and to verify the pattern is ready to denotate. If the pattern is ready, the Blaster-in-Charge and all of the Blockers will check for human activities, livestock and property within the potential blast area around the drill pattern. After all of the area is cleared and all of the Blockers and Blaster-in-Charge are in a safe position, the Blaster-in-Charge will request on the Company radio frequency for this Pit area an all clear response from all of the Blockers. If everything is ready, the Blaster-in-Charge will complete the final connection a safe distance away from the shot. Then, the Blaster-in-Charge will call or designate the appropriate Mine personnel, who, over the Mine radio on the radio frequency for this blast area, will identify the type of shot, location, and request radio silence. On the radio, the appropriate Mine personnel will repeat the request for radio silence, repeat the type of shot, and repeat the location of the proposed blast. The Blockers now confirm to the Blaster-in-Charge that the area is cleared and ready for blasting. The Blaster-in-Charge calls to initiate the pre-blast audible signal: five signals on an audible warning signal devices; approximate two minute pause; and then ten audible signals on the audible warning signal devices. The signal will be audible for at least one-half mile from the point of the blast. The primary blasting warning signal devices utilized will be a 100 watt or greater audible speaker warning device(s) and the dragline signal. Portable audible warning devices assigned to qualified Company employees surrounding the perimeter of the blast area, plus the dragline signal will be utilized as backup warning devices or

AUG 2011
APPROVED

to assist the primary audible speaker warning device(s); however, in either procedure, the signal will be audible at least one-half mile from the point of the blast. If the shot is still clear, the Blaster-in-Charge will connect the initiating system to the detonating device and wait approximately one additional minute after the end of the ten signals. The Blaster-in-Charge will again contact all of the Blockers to verify all of the blast area is clear. Once all Blockers confirm the area is clear, the Blaster-in-Charge calls over the Mine radio. He says that there is going to be a (type) shot at (gives location) and "Fire in the Hole". The Blaster-in-Charge then charges the initiating system and detonates the blast. The Blaster-in-Charge then calls the Blockers and confirms all personnel are safe and the area is still clear. Once the Blockers respond, the Blaster-in-Charge calls the appropriate Mine personnel and gives the time of the shot, confirms the shot has been fired, and the Mine personnel can resume normal radio communications. The Blaster-in-Charge and the necessary Blockers, then go back into the blast area to check the shot. If everyone confirms the area is safe to reenter, the Blaster-in-Charge requests the audible warning signal devices sound one long signal. Finally, the Blaster-in-Charge calls on the mine radio the appropriate mine personnel and informs them the area has been checked, the area is safe to reenter, and the appropriate mine person repeats this information over the mine radio.

Records

The blasting forms shown in Figures 1 and 2 are completed for each blast and retained for a period of three years following the date of the blast. Copies of these records are maintained at Kayenta Mine and are made available for inspection. Shot pattern examples are included in this chapter on pages 17 through 20.

Please refer to Attachment 5, Blast Monitoring Plan, for additional record keeping and reporting requirements.

**FIGURE 1. BLASTING STATEMENT**

## PEABODY WESTERN COAL COMPANY - KAYENTA MINE COMPLEX BLASTING REPORT

SHOT NO. sample PIT/RAMP J19 B0A DATE: 08/31/2012 TIME: 12:00 am

WEATHER Clear TEMP 0 WIND DIRECTION N VELOCITY 0

COORDINATES OF BLASTING LOCATION _____

ID, DIRECTION AND DISTANCE TO NEAREST DWELLING KAYENTA MINE ° 0 FT

MAXIMUM ALLOWABLE WT. OF EXPLOSIVE DETONATED PER 8 MS 0

MAX. NUMBER OF HOLES PER 8 MS: 0 SCALE DISTANCE USED 50

BLASTER IN CHARGE: Eric B Hunter CERT. NO. 1234 SIGNATURE _____

DRILL NO. _____ BIT SIZE _____

MATERIAL SHOT A-Rock

AVG. HOLE DEPTH _____ DEPTH RANGE _____

AVG. BURDEN _____ AVG. SPACING _____ NO. OF DECKS _____

MAXIMUM WT. OF EXPLOSIVES LOADED PER HOLE: _____

MAXIMUM WT. OF EXPLOSIVES DETONATED PER 8 MS: 0

TOTAL NO. OF HOLES 0 TOTAL WT. OF EXPLOSIVE _____

TYPE OF STEMMING _____ AVG. LENGTH OF STEMMING _____

INITIATION SYSTEM Non-Electric

TYPE OF EXPLOSIVE USED:

AMMONIUM NITRATE _____ LBS. EMULSION _____ LBS. % ____ / ____

PRIMERS: NO. ____ @ ____ LBS. TOTAL WT: _____ LBS.

SURFACE DELAYS:

_____

DOWN HOLE DELAYS:

_____

TYPE OF SEISMOGRAPH _____

COORDINATES OF INSTRUMENT N

SENSITIVITY OF INSTRUMENT _____ CALIBRATION SIGNAL MMC ON FILE-PWCC

DIST. FROM BLAST _____ VIBRATION LEVEL RECORDED _____ AIR BLAST LEVEL REC _____

PERSON AND FIRM TAKING READING _____

ANALYZING PERSON AND FIRM _____

REASONS AND CONDITIONS FOR UNSCHEDULED BLAST

_____

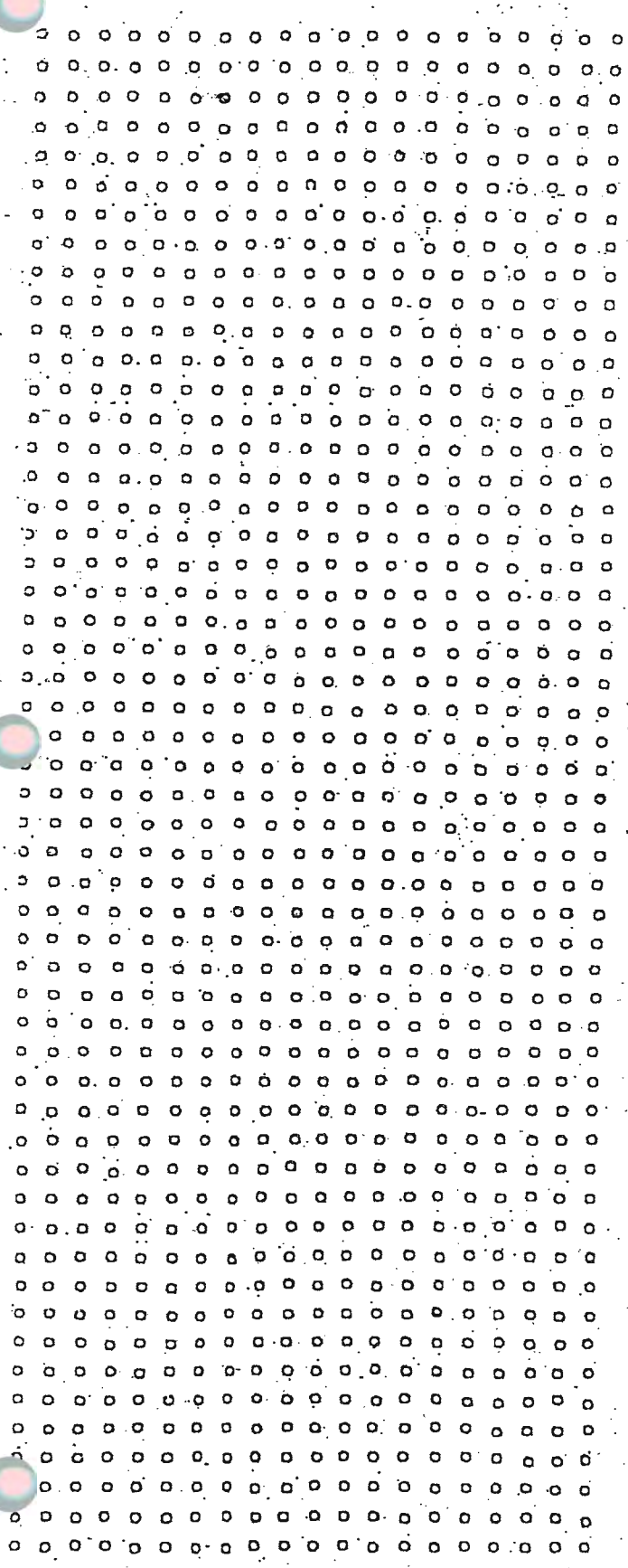
_____

FOOTAGE _____ CUBIC YARDS _____



Revised 09/10/12

# SKETCH OF DRILL PATTERNS



(BLOCKED)

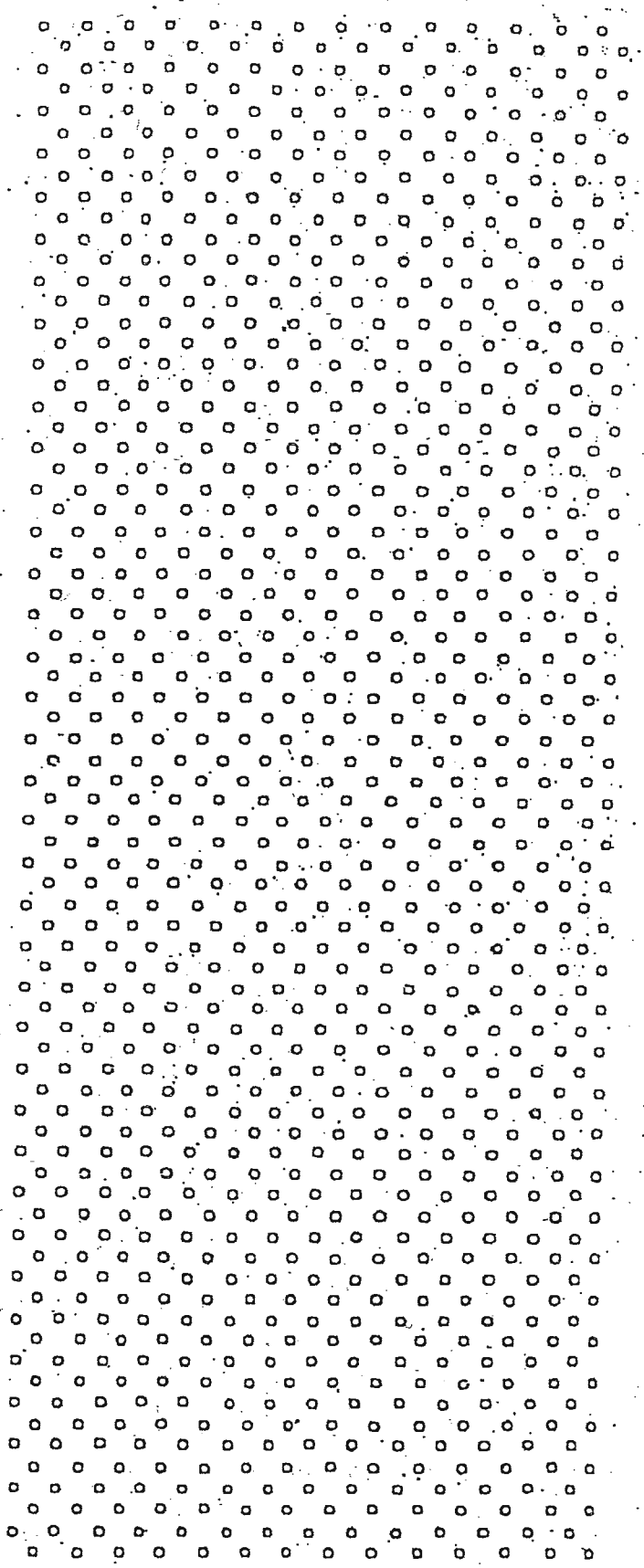


FIGURE 2. BLASTING REPORT

Shot:
Bench:

# Load Sheet Report

DYNO
Dyno Nobel

| | | | |
|---|---|---|---|
| Mine: | Shot: | Date: | Time: |
| Blaster: | License: | Material: | Holes: |
| Diameter: | Burden: | Spacing: | Primers: |
| Fuel: | AN: | ANFO: | Emulsion: |
| Average Depth: | | P.F. | Gal / Fuel: |
| Max lbs / 8ms: | Holes / 8ms: | | Total Exp.: 0 |
| Temperature: | Wind Dir: | Wind Speed: | Conditions: |
| Location: | | Method of Detonation: | |
| Initiation: | | | |
| Comments: | | | |

## Inventory

| Description | Date Code | Out | Description | Date Code | Out |
|---|---|---|---|---|---|
| TROJAN 450G 1LB | 0 | 68.00 | 2500 FT NLIL | 0 | 500.00 |
| Core Deck | NA | 544.00 | NONEL TD 42MS | 0 | 13.00 |
| NONEL TD 109MS 60FT | 0 | 55.00 | PRIMACORD 4Y | 0 | 2500.00 |

| Row | Col | Depth | Rise | Stem | Wet? | Product | Hole Total |
|---|---|---|---|---|---|---|---|

## Product Totals

| Product | Total |
|---|---|



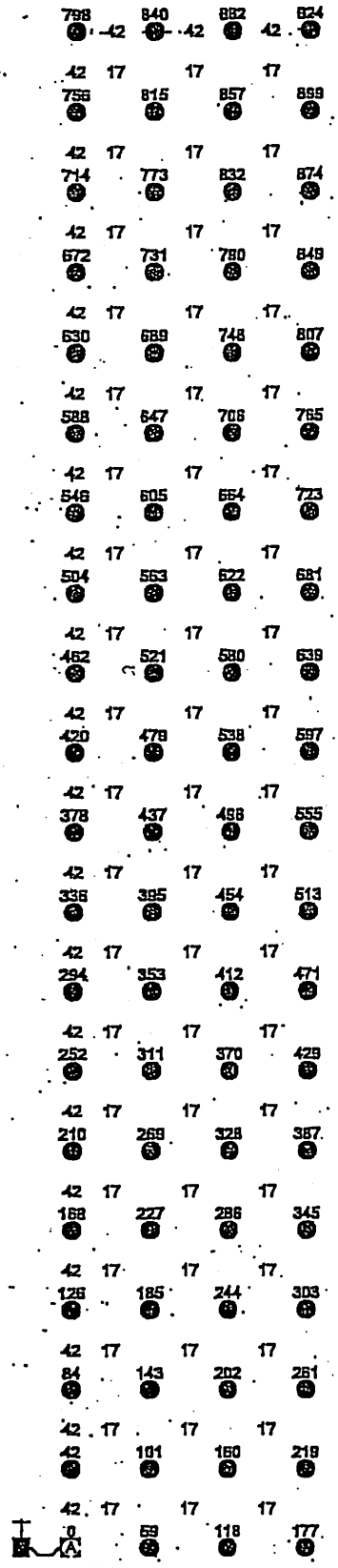
Revised 09/10/12

**Shot Pattern Examples:**

- **Parting or Shot to Stand**
  - **Cast Shot**
  - **Coal Shot**

AUG 2011
APPROVED

| Date: | Pit: | Ramp: | Shot: | Page 1 of 1 |
|---|---|---|---|---|




APPROVED

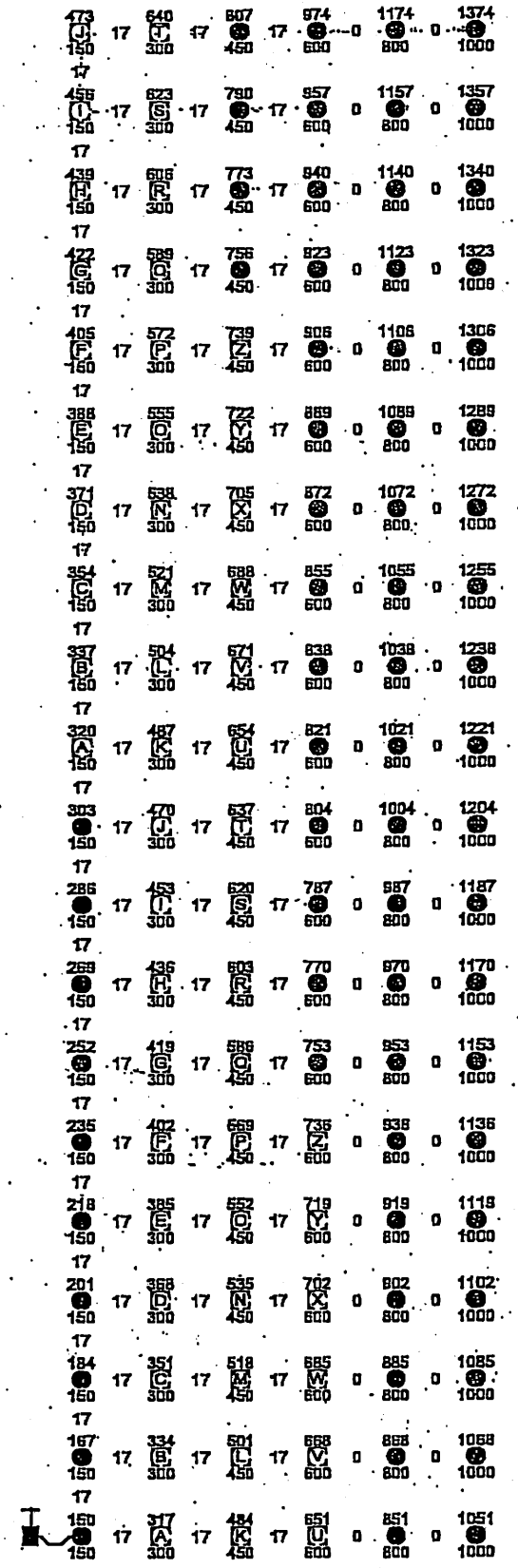
All numbers are in milliseconds(ms).
Numbers on lines are surface delays(ms) between holes.

Holes with alpha characters denote groups of the maximum number of holes that fire within 8ms.
Numbers above holes are accumulated times(ms) to detonation.



Revised 06/09/10

| Date: | Pit: | Ramp: | Shot: | Page 1 of 1 |
|---|---|---|---|---|

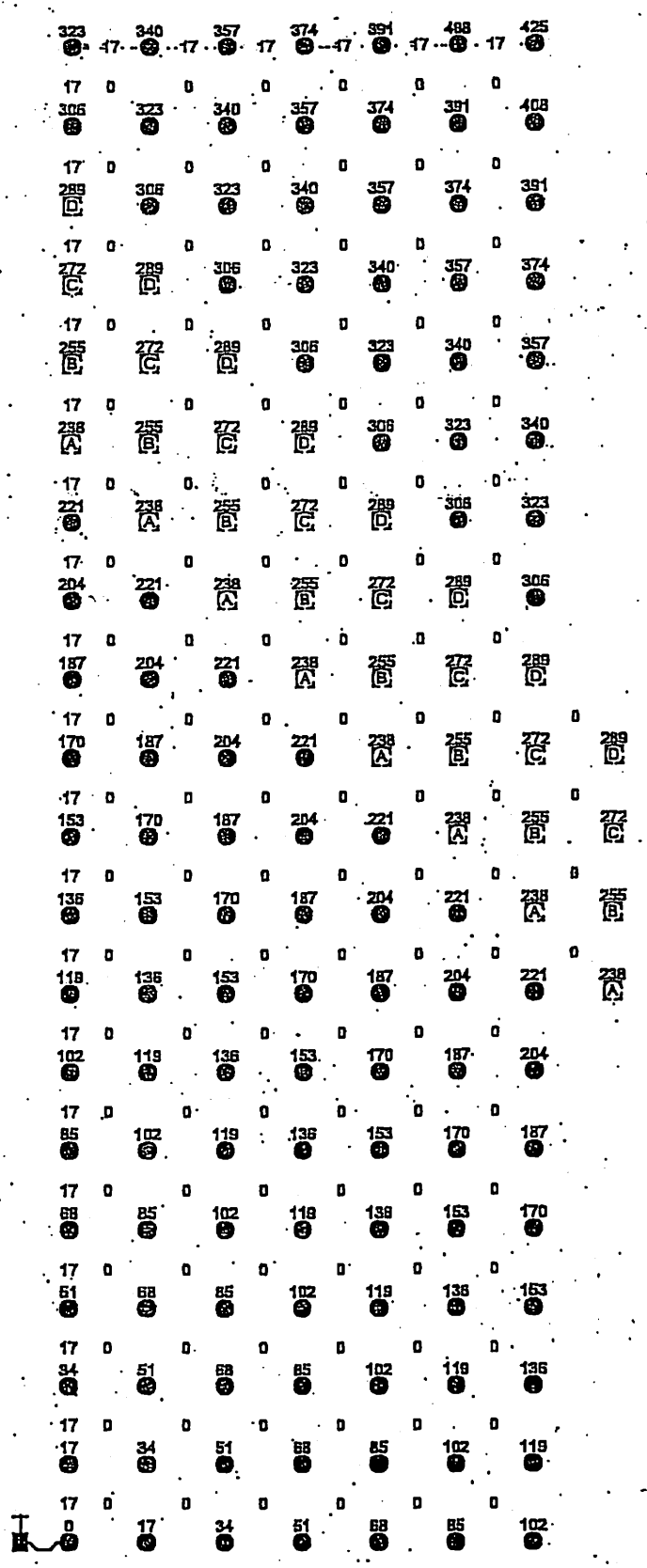



All numbers are in milliseconds(ms). Numbers above holes are accumulated times(ms) to detonation. Numbers below holes are in-hole delays(ms).
Numbers on lines are surface delays(ms) between holes. Holes with alpha characters denote groups of the maximum number of holes that fire within 8ms.



Revised 06/09/10

| Date: | Pit: | Ramp: | Shot: | Page 1 of 1 |
|---|---|---|---|---|




All numbers are in milliseconds(ms).
Numbers on lines are surface delays(ms) between holes.

Holes with alpha characters denote groups of the maximum number of holes that fire within 8ms.
Numbers above holes are accumulated times(ms) to detonation.

AUG 2011
APPROVED



Revised 06/09/10

ATTACHMENT 1

AIRBLAST MONITORING RESULT

717-455-5861
TOLL FREE PA 800-582-6374
TOLL FREE USA 800-233-6181

**vibra-tech engineers incorporated**
CONSULTANTS TO THE MINING, QUARRYING, CONSTRUCTION AND EXPLOSIVE USING INDUSTRIES

FIRST & NORTH CHURCH STS. P.O. BOX 577 HAZLETON, PENNSYLVANIA 18201-0577

August 27, 1985

Mr. Don Howell
Peabody Coal Co.
P.O. Box 605
Keyenta, AZ 86033

Dear Mr. Howell:

Attached you will find our report covering the registration and analyses of the air-borne effects transmitted from the primary blast on August 6, 1985 at your Keyenta Mine in Keyenta, Arizona.

The original air concussion record obtained from the blast is attached at the rear. The recording was made on compliance with the OSM Regulation 816.676 (B) (2) (i) governing periodic monitoring of air blasts from blasting.

The air concussion level recorded (107 dB) is well below the OSM Regulation 816.67 (B) (1) (i) of 129 dB linear (6 dB system).

If we may be of further assistance in this matter, please advise.

Respectfully submitted,

VIBRA-TECH ENGINEERS, INC.

John Simmance
Field Representative

Anthony J. Petro, P.E.
President

JS:amc

# VIBRA-TECH BLAST AND SEISMOGRAPH ANALYSIS

Company PEABODY COAL CO Address KAYENTA, ARIZONA Operation

## BLAST DATA

9" Holes : 21' x 24'
12¼" Holes : 27 x 30'

Shot No. 8-27 Spacing ____ ft. Total Explosives 49,375 lbs. Max. explo./delay 700 lbs. Delay Nos. ____

Date AUG 6 '85 Depth 26-50 ft. ____ lbs. Max. holes (decks)/delay ____ Delay mfr. NONEL

* Time 1:25 pm Diameter 9" & 12¼ in. ____ lbs. Scaled Dist./nearest bldg. ____ No. of timer circuits ____

No. of holes 138 Stemming 20 ft.+ ____ lbs. Type of stemming DRILL CHIPS Timer interval ____ ms.

Exact Blast Loc. J-21, RAMP 4D Weather FINE, WARM, WIND 200° @ 10 mph Blaster TIM HOWE

## SEISMOGRAPH DATA

Exact location of seis PRISCILLA YAZZIE RESIDENCE (NEW), N.E. OF SHOT Distance from blast 3120 ft.

Seis. No. 2550 Cassette No. 1 Operator J. SIMMANCE

Range LOW in/sec. Trigger Level N/A Witness PETE KEAHEY

Meters { Particle Velocity < .05 ips. Air Overpressure 105/6 dBl. (PROBABLY WIND EFFECTS)

## VIBRATION MEASUREMENTS

(DO NOT WRITE IN THIS AREA)

Transverse ____ in/sec. Maximum vibration ____ % of the recommended limit of ____ inches/second

Vertical ____ in/sec.

Longitudinal ____ in/sec.

Overpressure ____ psi (linear) ____ dB (linear)

(DO NOT WRITE IN THIS AREA)

Maximum overpressure ____ % of the recommended limit of ____ psi (Decibels)

Remarks

VIBRATION ANALYSIS BY:

* Recorded on J.S. watch as 1:41 p.m., and noted on voice record on tape. Official recorded time, by blasters watch is 1:25 p.m.

(USE REVERSE SIDE FOR BLAST DIAGRAM)

EABODY COAL CO.
ATE 8/6/85
NSTRUMENT NO. 2550

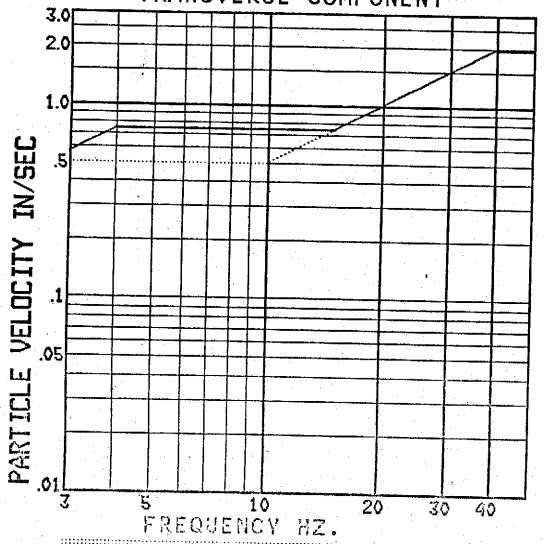
ERATION KAYENTA MINE
ENT NO. 8-27
RANGE Ø.25

AIR CONCUSSION = Ø.ØØØ68 lbs/sq in = 1Ø7 dB

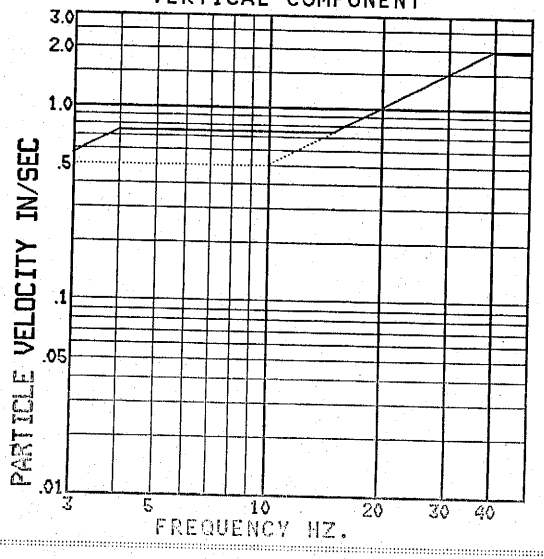
TIMING INTERVAL Ø.1 SEC.

RESPONSE PLOTS NOT USED FOR THIS EVENT

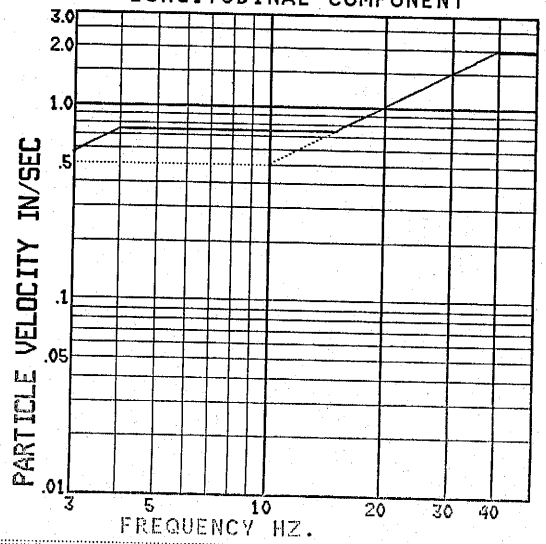
TRANSVERSE COMPONENT




VERTICAL COMPONENT




LONGITUDINAL COMPONENT




NITRO CONSULT, INC. 1Ø4ØØØØØØØØØ ØØØØØØØØØØØØØ 1ØØ1ØØ1ØØ ØØØØØØØØØØØØ

VIBRA-TECH ENGINEERS INC.

ATTACHMENT 2

BLASTING SCHEDULE NOTICE

AUG 2011

PEABODY WESTERN

Peabody Western Coal Company

# Memorandum

DATE: November 20, 2009

TO: RANDALL HENDRIX, GARY COUTS, CALVIN TOHANIE, JOHN AUSTIN, GREGG KITCHEN, BARRY GRASS

FROM: JIM SCHLENVOGT

RE: 2010 ANNUAL BLASTING SCHEDULE NOTICE

Pursuant to 30 CFR 816.64 OSM regulations, please find enclosed for your files, a copy of the 2010 Annual Blasting Schedule Notice to be published in the newspapers in December, 2009. In addition, this blasting schedule notice will be mailed or hand delivered by Walter Begay to the local residents, governmental agency, and public utilities within one-half mile of each mining area.

If requested by a government inspector, please make this notice available. If there is any deviation from or revision to this blasting notice, please contact Kim Pastrick or me immediately.

Js

Enclosures

C: D. Ashike
K. Pastrick
G. Wendt

AUG 2011 APPROVED

PEABODY WESTERN

**Peabody Western Coal Company**

November 24, 2009

Navajo-Hopi Observer
Attn: Classified Advertising Department
2224 E. Cedar Ave., Suite 2
Flagstaff, AZ 86004

(928) 226-9696, Ext. 2
(928) 226-1115 (fax)

Dear Department Manager:

This request replaces the notice I mailed to your office on November 20, 2009. I request the enclosed public noticed titled "2010 Blasting Schedule Notice" be printed on your next publication date in December, 2009, or the closest scheduled publication date, in the classified legal section of your newspaper. If an electronic version of the publication document is required, please email me at the following internet address: jschlenvogt@peabodyenergy.com and I will respond with the electronic version.

Once publication has been completed, please provide an **"Affidavit of Publication"**, verifying publication date and contents, and an invoice to Peabody Western Coal Company, Attn: Mr. Jim Schlenvogt. If you have any questions, feel free to contact me at (928) 677-5089. Thank you for your time and assistance.

Sincerely,

Jim Schlenvogt

Jim Schlenvogt
Engineering Manager, P.E.

Jgs

Enclosure

C: R. Hendrix
K. Pastrick
G. Wendt
B. Woodward

AUG 2011
APPROVED

PEABODY WESTERN

**Peabody Western Coal Company**

November 24, 2009

The Tuturveni
Attn: Classified Advertising Department
P.O. Box 123, Main St.
Kykotsmovi, AZ 86039
(928) 734-3282
(928) 734-6648 (fax)

Dear Department Manager:

This request replaces the notice I mailed to your office on November 20, 2009. I request the enclosed public noticed titled "2010 Blasting Schedule Notice" be printed for your next publication date in December, 2009, or the closest scheduled publication date, in the classified legal section of your newspaper. If an electronic version of the publication document is required, please email me at the following internet address: jschlenvogt@peabodyenergy.com and I will respond with the electronic version.

Once publication has been completed, please provide an **"Affidavit of Publication"**, verifying publication date and contents, and an invoice to Peabody Western Coal Company, Attn: Mr. Jim Schlenvogt. If you have any questions, feel free to contact me at (928) 677-5089. Thank you for your time and assistance.

Sincerely,

Jim Schlenvogt

Jim Schlenvogt
Engineering Manager, P.E.

Jgs

Enclosure

C: R. Hendrix
K. Pastrick
G. Wendt
B. Woodward

PEABODY WESTERN

**Peabody Western Coal Company**

November 24, 2009

Navajo Times
ATTN: Ms. Josephine Carl
Classified Advertising Department
P.O. Box 310
Window Rock, AZ 86515

Dear Ms. Carl:

This request replaces the notice I mailed to your office on November 20, 2009. I request the enclosed public notice titled "2010 Blasting Schedule Notice" be published during your next available publication date in December, 2009, or the closest scheduled publication date, in the classified legal section of your newspaper. If an electronic version of the publication document is required, please email me at the following internet address: jschlenvogt@peabodyenergy.com and I will respond with the electronic version.

Once publication has been completed, please provide an **"Affidavit of Publication",** verifying publication date and contents, and an invoice to Peabody Western Coal Company Attn: Mr. Jim Schlenvogt. If you have any questions, feel free to contact me at (928) 677-5089. Thank you for your time and assistance.

Sincerely,

Jim Schlenvogt

Jim Schlenvogt
Engineering Manager, P.E.

Jgs

Enclosure

C: R. Hendrix
K. Pastrick
G. Wendt
B. Woodward

AUG 2
APPROVED

Peabody Western Coal Company · P.O. Box 650 · Kayenta, Arizona 86033 · Telephone (928) 677-3201 · Fax (928) 677-5083

# (2010) BLASTING SCHEDULE NOTICE

Peabody Western Coal Company hereby provides notice of its blasting schedule for the Black Mesa Complex located approximately 18 miles southwest of Kayenta, Arizona, address being Post Office Box 650, Kayenta, Navajo County, Arizona 86033 (telephone: 928-677-3201). This notice is provided in accordance with Public Law 95-87.

During the calendar year 2010, blasting of overburden, coal, or parting may occur daily between sunrise and sunset. If, in the opinion of authorized personnel, conditions exist which may jeopardize the public or operator's health, safety, or for emergency blasting actions, then emergency blasting may be accomplished at other times. The operator will document the reason and conditions for the emergency nighttime unscheduled blast.

Access to the blasting area is controlled by physically clearing and removing all unauthorized persons and by the location of appropriate barricades, blockers, flags, and blasting area signs prior to a shot being fired. Before each blast, an audible warning signal of five short signals, an approximate two-minute pause, ten continuous blows from an air horn, and then an approximate one-minute pause prior to the blast will be issued. After each blast an audible all-clear signal of one long continuous blow from an air horn will be issued.

Blasting will primarily occur at six potential mining areas. Each blasting area is contained within T35 and 36N-R18 and 19E of Navajo County, Arizona, and more particularly described below. In addition, blasting may occur to fragment materials during construction or excavation activities at the support facilities described below. Initiation of blasting in sections not covered by this notice will require issuance of a new notice.

## PIT AREAS

| | |
|---|---|
| J-19 & J-19 West Pit | Blasting can occur on lands generally located approximately three miles southwest of the J-28 Black Mesa Complex Office in portions of Sections 3, 4, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21 and 22, T35N-R19E; |
| J-21 Pit | Blasting can occur on lands generally located approximately three miles south of the J-28 Black Mesa Complex Office in portions of Sections 2, 11, 12, 13, 14, 15, 16, 21, 22, 23, 27, and 28 T35N-R19E; |
| N-6 Pit | Blasting can occur on lands generally located approximately six miles north of the J-27 Black Mesa Complex Facilities Office in portions of Sections 9, 10, 14, 15, 16, 20, 21, 22, 23, 27, and 28, T36N-R18E. In 2010, the N-6 Pit is primarily in reclamation. |
| N-9 Pit | Blasting can occur on lands generally located approximately nine and one-half miles northwest of the J-28 Black Mesa Complex Office in portions of Sections 28, 29, 32, 33, and 34, T37N-R18E, and Sections 4, 5, and 8, T36N-R18E. |
| N-11 Pit | Blasting can occur on lands generally located approximately six and one-quarter miles northwest of the J-28 Black Mesa Complex Office in portions of Sections 10, 11, 12, 13, and 14, T36N-R18E. In 2010, the N-11 Pit is primarily in reclamation. |

AUG 2011
APPROVED

## SUPPORT FACILITIES AREA

| | |
|---|---|
| N-6 Scoria Pit | Blasting can occur on lands generally located approximately four and one-half miles north/northwest of the J-27 Black Mesa Complex Facilities Office in portions of Sections 20, 21, and 28, T36N-R18E. |
| J-27 Black Mesa Complex Facilities | Blasting can occur on lands generally located approximately within portions of Section 15, T35N-R18E surrounding the J-27 Black Mesa Complex Facilities. Since 2006, these facilities are primarily inactive. |
| J-28 Black Mesa Complex Facilities | Blasting can occur on lands generally located approximately within portions of Sections 20, 29, and 34, T36N-R19E surrounding the J-28 Black Mesa Complex Facilities. |

AUG 2011
APPROVED

LEGALS/PUBLIC NOTICES - 2000

## Affidavit of Publication

I, Douglas F. Wells, Publisher of the NAVAJO-HOPI OBSERVER, a newspaper of general circulation published at Flagstaff, Coconino County, Arizona, do solemnly swear that a copy of this notice, as per clipping attached, was published weekly in the regular and entire issue of said paper and not in any supplement thereof, one (1) week, commencing with issue dated December 9th, 2009 and ending with issue dated December 9th, 2009.

Douglas F. Wells, Publisher

Subscribed and sworn to before me this 9th day of December 2009.

Carol J. DeLander, Notary Public

My commission expires September 22, 2010

OFFICIAL SEAL
CAROL J. DELANDER
Notary Public – State of Arizona
COCONINO COUNTY
My commission expires Sept. 22, 2010

AUG 2011
APPROVED

LEGALS/PUBLIC NOTICES - 2000

## Affidavit of Publication

I, Douglas F. Wells, Publisher of the NAVAJO-HOPI OBSERVER, a newspaper of general circulation published at Flagstaff, Coconino County, Arizona, do solemnly swear that a copy of this notice, as per clipping attached, was published weekly in the regular and entire issue of said newspaper and not in any supplement thereof, one (1) week, commencing with issue dated December 9th, 2009 and ending with issue dated December 9th, 2009.

Douglas F. Wells, Publisher

Subscribed and sworn to before me this 9th day of December 2009.

Carol J. DeLander, Notary Public

My commission expires September 22, 2010

OFFICIAL SEAL
CAROL J. DELANDER
Notary Public – State of Arizona
COCONINO COUNTY
My commission expires Sept. 22, 2010

# AFFIDAVIT OF PUBLICATION

Invoice# L-7596

I, Duane A. Beyal, Editor of the Navajo Times, a legal newspaper published weekly at Window Rock, Navajo Nation, Arizona, do hereby swear that a legal notice:

2010 Blasting Schedule Notice.

was published in said Navajo Times on the following date(s):

December 3, 2009.

and that said notice is attached to this Affidavit and is a true and exact copy of said notice as published.

Duane A. Beyal
Editor

STATE OF ARIZONA :}
:}

COUNTY OF APACHE :}

AUG 2011
APPROVED

SUBSCRIBED AND SWORN TO before me this

3rd day of December, 2009.

Olivia L Wilson
Notary Public

My Commission Expires:

April 16, 2012

OFFICIAL SEAL
OLIVIA L. WILSON
NOTARY PUBLIC - State of Arizona
APACHE COUNTY
My Comm. Expires April 16, 2012

# LEGALS

AUG 2011
APPROVED

(2010) BLASTING
SCHEDULE NOTICE

Peabody Western Coal Company hereby provides notice of its blasting schedule for the Black Mesa Complex located approximately 18 miles southwest of Kayenta, Arizona, address being Post Office Box 650, Kayenta, Navajo County, Arizona 86033 (telephone: 928-677-3201). This notice is provided in accordance with Public Law 95-87.

During the calendar year 2010, blasting of overburden, coal, or parting may occur daily between sunrise and sunset. If, in the opinion of authorized personnel, conditions exist which may jeopardize the public or operator's health, safety, or for emergency blasting actions, then emergency blasting may be accomplished at other times. The operator will document the reason and conditions for the emergency nighttime unscheduled blast.

Access to the blasting area is controlled by physically clearing and removing all unauthorized persons and by the location of appropriate barricades, blockers, flags, and blasting area signs prior to a shot being fired. Before each blast, an audible warning signal of five short signals, an approximate two-minute pause, ten continuous blows from an air horn, and then an approximate one-minute pause prior to the blast will be issued. After each blast an audible all-clear signal of one long continuous blow from an air horn will be issued.

Blasting will primarily occur at six potential mining areas. Each blasting area is contained within T35 and 36N-R18 and 19E of Navajo County, Arizona, and more particularly described below. In addition, blasting may occur to fragment materials during construction or excavation activities at the support facilities described below. Initiation of blasting in sections not covered by this notice will require issuance of a new notice.

PIT AREAS

J-19 & J-19 West Pit: Blasting can occur on lands generally located approximately three miles southwest of the J-28 Black Mesa Complex Office in portions of Sections 3, 4, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21 and 22, T35N-R19E.

J-21 Pit: Blasting can occur on lands generally located approximately three miles south of the J-28 Black Mesa Complex Office in portions of Sections 2, 11, 12, 13, 14, 15, 16, 21, 22, 23, 27, and 28 T35N-R19E.

N-6 Pit: Blasting can occur on lands generally located approximately six miles north of the J-27 Black Mesa Complex Facilities in portions of Sections 9, 10, 14, 15, 16, 20, 21, 22, 23, 27, and 28, T36N-R18E. In 2010, the N-6 Pit is primarily in reclamation.

N-9 Pit: Blasting can occur on lands generally located approximately nine and one-half miles northwest of the J-28 Black Mesa Complex Office in portions of Sections 28, 29, 32, 33, and 34, T37N-R18E, and Sections 4, 5, and 8, T36N-R18E.

N-11 Pit: Blasting can occur on lands generally located approximately six and one-quarter miles northwest of the J-28 Black Mesa Complex Office in portions of Sections 10, 11, 12, 13, and 14, T36N-R18E. In 2010, the N-11 Pit is primarily in reclamation.

To be Published in The NAVAJO TIMES December 3, 2009.

---

NOTICE OF TRUSTEE'S SALE TS# AZ-211971-C, Title Order No.# 14-08784 Loan# 0601368092 The following legally described trust property will be sold, pursuant to the power of Sale under that certain Deed of Trust dated 6/13/2006 and recorded on 6/23/2006 as Instrument # 2006-19099, Book Page in the office of the County Recorder of Navajo County, Arizona, at public auction to the highest bidder at in the courtyard of the Navajo County Governmental Complex, South Highway 77, Holbrook, Arizona, on 1/19/2010 at 2:00 PM of said day: Lot 108, FRONTIER ESTATES, according to Book 21 of Plats, Page 36, 37 and 38 and amended in Book 21 of Plats, Page 39, 40 and 41 and amended in Book 21 of Plats, Pages 47,48 and 49 and amended in Book 23 of Plats, Page 5, 6 and 7 records of Navajo County, Arizona. EXCEPT all the coal and other minerals as reserved in patent from United States of America. ACCORDING TO THE DEED OF TRUST OR UPON INFORMATION SUPPLIED BY THE BENEFICIARY, THE FOLLOWING INFORMATION IS PROVIDED PURSUANT TO A.R.S. SECTION 33-808(C): STREET ADDRESS OR IDENTIFIABLE LOCATION: 1773 WEST STAGECOACH LANE SNOWFLAKE, AZ 85937 TAX PARCEL NUMBER: 202-53-108 ORIGINAL PRINCIPAL BALANCE: $417,000.00 NAME AND ADDRESS OF ORIGINAL TRUSTOR: (as shown on the Deed of Trust) Sherry L. Kelloway, a married woman as her sole and separate property 1773 West Stagecoach Lane Snowflake, AZ 85937 NAME AND ADDRESS OF BENEFICIARY: (as of recording of Notice of Sale) MORTGAGE ELECTRONIC REGISTRATION SYSTEMS, INC. 1100 VIRGINIA DRIVE FORT WASHINGTON, PA 19034 NAME, ADDRESS & TELEPHONE NUMBER OF TRUSTEE: (as of recording of Notice of Sale) Executive Trustee Services, LLC 2255 North Ontario Street, Suite 400 Burbank, California 91504-3120 Sale Line: 714-259-7850 DATED: 11/23/2009 By: EXECUTIVE TRUSTEE SERVICES, LLC ASAP# 3357475.

To be Published in The NAVAJO TIMES December 3, 10, 17, 23, 2009.

---

WINDOW ROCK UNIFIED SCHOOL DISTRICT #8
NOTICE OF
INVITATION FOR BIDS FOR SURPLUS PROPERTY SALE

Materials and/or Services:
(1) 1995 Chevrolet Van #485; (1) 1995 Chevrolet Van #486; (1) 1999 Chevrolet Suburban #487; (1) 1999

certified checks, cashiers checks or cash shall be accepted for sales of surplus property unless otherwise approved by the school district or for sales of less than $100. An employee of the school district or a governing board member shall not directly or indirectly purchase or agree with another person to purchase surplus property if said employee or board member is, or has been directly or indirectly involved in the purchase, disposal, maintenance, or preparation for sale of the surplus material. If you have any questions, call Mr. Bennis Dedman at (928) 729-6749.

To be Published in The NAVAJO TIMES December 3, 10, 2009.

---

ATTACHMENT A
WINDOW ROCK UNIFIED SCHOOL DISTRICT #8
NOTICE OF NEED FOR DISTRICT-WIDE ARCHITECTURAL SERVICES
REQUEST FOR PROPOSALS (RFP) NO. WR2010-140

The Window Rock Unified School District No. 8 ("School"), Fort Defiance, Apache County, AZ, invites the submittal of Proposals ("Proposal") for District Wide Architectural Services from qualified firms and registrants ("Respondents") properly registered in the State of Arizona with the Arizona State Board of Technical Registration. The District specifically seeks architectural and engineering services from firms that have a demonstrated history in the construction of athletic facilities. All Proposals will be subject to all requirements specified in the Request for Proposal package ("RFP"). RFPs may be obtained at the following location:

Window Rock Unified School District No. 8, Navajo Route 12, Administration Bldg., Fort Defiance, AZ 86504.

RFPs will not be faxed or mailed.

A Pre-Submittal conference is scheduled for December 15, 2009 at 2:00 PM local time at the Conference Room at the School District Administration Office, Navajo Route 12, Fort Defiance, AZ 86504. Attendance by Respondents is strongly encouraged, but is not mandatory.

Proposals shall be submitted in a sealed envelope. The outside of the envelope shall be clearly marked "Window Rock Unified School District No. 8, Proposal for District Wide Architectural Services, RFP No. WR 2010-140, Submitted by [Respondent name]". One (1) original and eight (8) copies of the Proposal shall be submitted, with the original clearly so labeled. Sealed Proposals will be received until 2:00 PM local time, January 5, 2010, at the School District Administration Office, Navajo Route 12, Fort Defiance, AZ 86504. Faxed or emailed Proposals will not be considered.

Proposals will be time and date stamped upon receipt in the School District Administration Office. Time of proposal arrival will be recorded from the clock located at the School District Administration Office. Any Proposals, modifications, or withdrawals arriving at the School District Administration Office

- Minimum of $1,000,000 Liability Insurance.
- Minimum of $1,000,000 Bonded.
- Minimum of $1,000,000 Commercial/Business Auto Liability Insurance.

To be Published in The NAVAJO TIMES December 3, 10, 2009.

---

IN THE FAMILY COURT OF THE NAVAJO NATION
JUDICIAL DISTRICT OF WINDOW ROCK, ARIZONA

IN THE MATTER OF:
J.K.D., a minor,
Concerning:
Brenda A. Anderson, C#507,314;
Virgil L. Davis, C#507,315
Petitioners.
And Concerning:
Lenora Shorty, C#652,967
Respondent. No. WR-FC-1226-09
ORDER OF NOTICE OF HEARING BY PUBLICATION

To: Lenora Shorty.

A Petition has been filed against you in this court demanding guardianship of a minor. You or your legal counsel, are hereby directed to file a pleading or motion to respond to the Petition for Guardianship on file herein, on or before January 3, 2010, with the Office of the Clerk of the above-referenced Court. You are also directed to serve a copy of your answer to the Petition for Guardianship upon Petitioner's counsel, Emery B. McCabe, P.O. Box 393, Window Rock, AZ 86515. Unless an appearance is entered by you in this cause on or before the above dated, judgment will be rendered against you by default.

Dated this 24th day of November, 2009.
Family Court Judge

To be Published in The NAVAJO TIMES December 3, 10, 17, 2009

---

OFFICE OF THE NAVAJO TAX COMMISSION
REQUEST FOR PROPOSALS

The Office of the Navajo Tax Commission is accepting proposals from qualified individuals or firms to provide professional and technical consultation and advice on the tax laws, and natural resources appraisals and inspections.

The proposed contract will begin February 1, 2010 and end September 30, 2010.

The contract will be awarded to an individual or firm who has the best qualifications, experience and cost of services. Preference to Navajo firms in accordance with the Navajo Business Preference Law will be complied with in the review of proposals submitted pursuant to this notice.

The proposal shall give the fee rate per hour for the services to be provided and a provision for payment of expenses to be invoiced to the Office of the Navajo Tax Commission. All Navajo taxes shall apply to this contract.

SCOPE OF WORK

Consultation in the development of appraisal factors, guidelines, and parameters to be used in appraising and assessing properties under the Possessory Interest Tax;

Appraisal of taxable properties under the Possessory Interest Tax and consultation with the Commis-

AZ and Rough Rock, AZ.

A Mandatory Pre-Bid Conferenc will be held at 2:00 p.m. (local tim on December 8, 2009 at Navaj Division of Transportation offic Highway 264 & Navajo Route 1 Hogan Tso Office Building #53C Window Rock, AZ 86515. Repre sentatives of Owner and Enginee will be present to discuss the Pro ect. Bidders are required to atten and participate in the conferenc Engineer will transmit to all prospec tive Bidders of record such Addend as Engineer considers necessary i response to questions arising at th conference. Oral statements ma not be relied upon and will not b binding or legally effective.

Copies of the Contract Docu ments are on file at the location Indicated below starting Tuesda December 1, 2009, and are avail able to Bidders upon payment of $75.00 deposit required for eac set of Contract Documents. An unsuccessful Bidder or supplie upon returning such set(s) to th Engineer in a good condition withi ten (10) calendar days from th date of bid opening will be refunde his deposit in full.

Contract Documents may be amined at the following locatio

RME Santa Fe Engineering Inc., 3209 Mercantile Court, Suit A, Santa Fe, NM 87507-2959.

Navajo Division of Transportation, Hogan Tso Office Complex Highway 264, Window Rock, AZ 86515.

The successful bidder shal comply with all applicable laws, rules and regulations of the Navajo Preference Business Law (NNBPL) 5 NTC, Section 201 et seq, and Navajo Preference in Employment Act, 15 NTC, Section 601 et seq.

To be Published in The NAVAJO TIMES December 3, 10, 17, 2009.

---

INVITATION TO BID # 09-11-728 BD
NAVAJO DIVISION OF TRANSPORTATION
FOUR FUEL EXCISE TAX PARKING LOT PROJECTS
NEW MEXICO

Separate sealed BIDS, subject to the conditions set forth in the Contract Documents, will be received by the Navajo Division of Transportation, office located at Highway 264 & Navajo Route 12, Hogan Tso Office Building #53C, P.O. Box 4620, Window Rock, AZ 86515 until 2:00 PM (local time), Tuesday, December 22, 2009 for FOUR FUEL EXCISE TAX PARKING LOT PROJECTS – NEW MEXICO, at which time the bids will be opened publicly and read aloud. Contact person: Zane James, (zjames@navajodot.org / 928.871.6498).

All bids must be identified on the outside of the sealed envelop by "BID # 09-11-728 BD FOU FUEL EXCISE TAX PARKING LO PROJECTS – NEW MEXICO", name and address of Bidder and New Mexico Contractor's license number. FAX bids will not be accepted. Any bids received after the above stated closing time will be returned unopened. Before bids are opened, Bidders will be given the opportunity to withdraw pro-

# Affidavit of Publication

**State of Arizona,** )
) **ss.**
**County of Navajo,** )

I, **Martina Honie,** being duly sworn, depose and say I am Secretary of **THE HOPI TUTUVENI,** a newspaper of general circulation published at Kykotsmovi, County of Navajo and State of Arizona that the **2010 Blasting Schedule Notice** attached hereto, was published in said newspaper, **THE HOPI TUTUVENI,** for 1 issue, and said notice was published in the regular and entire issue of every number of the paper during the period of the time of publication and was published in 1 publication of the newspaper proper and not in a supplement, the publications being dated **December 3, 2009.**

Publication Date: **December 3, 2009**

Martina Honie Dated Dec. 31, 2009
**Signature**

**SUBSCRIBED AND SWORN TO before me this** 31 day of December 2009.

Harriet Honhongva-Setalla
**Notary Public**

HARRIET HONHONGVA-SETALLA
Notary Public - Arizona
Navajo County
My Comm. Expires Jun 23, 2012

**My commission expires** 04/23/2012

PEABODY WESTERN

# Peabody Western Coal Company

Date: November 20, 2009

To: Walter Begay, Jr.

From: Jim Schlenvogt

Re: 2010 Blasting Schedule Notice Distribution – Black Mesa & Kayenta Mines

Enclosed is the 2010 Blasting Schedule Notice, which has been mailed to the Navajo Times, Navajo-Hopi Observer, and the Hopi Tutuveni newspapers. In addition, the Blasting Schedule Notice will be mailed to the government agencies and public utilities. You will need to hand deliver the notices to the list of local residents who do not have post office box addresses.

Please hand deliver the enclosed 2009 Blasting Schedule Notice to the following residents:

- Lilly Crank and family
- Bah Begay and family
- Earl Kescoli and family
- Harrison Crank and family
- Maxine Kescoli and family
- Ned Yazzie and family
- Jacqueline Boyd and family
- Ataid Y. Lake and family
- Kevin Manymules and family
- Mardel Monroe and family

These residents do not receive mail or in the past year their blasting schedule notice mail was returned to PWCC.

Please have each resident sign the "Receipt of Blasting Schedule" form and return the signed form to me for the central files. If the resident refuses to sign or is unable to sign the form, please sign and date the form acknowledging Peabody's contact with the resident and return the information to me as required. Feel free to make additional copies of the "Receipt of Blasting Schedule" form.

Finally, review the attached resident's distribution list to ensure Peabody has notified all local residents, public utilities, and local government officials within one-half mile of the proposed blasting sites. In addition, anyone within one-half mile of the OSM permit boundary is required to be notified in writing of their right to request a preblasting survey of their structures.

If you have any questions or need any assistance, feel free to contact me.

Jgs
Enclosure(s)

C: Randall Hendrix
Kim Pastrick
Gary Wendt ✓
Buck Woodward

AUG 20
APPROVED

Peabody Western Coal Company · P.O. Box 650 · Kayenta, Arizona 86033 · Telephone (928) 677-3201 · Fax (928) 677-5083

Peabody Western Coal Company

# RECEIPT OF BLASTING SCHEDULE

I, _____,
have received a 2010 Blasting Schedule for the Black Mesa and Kayenta Mine Complex.

Resident's Signature: _____

Date: _____

Peabody's Representative: _____

Peabody Western Coal Company · P.O. Box 650 · Kayenta, Arizona 86033 · Telephone (928) 677-3201 · Fax (928) 677-5083

PEABODY WESTERN

Peabody Western Coal Company

ADDRESSES FOR BLASTING NOTICE:

Bureau of Indian Affairs
Navajo Area Office
P.O. Box 1060
Gallup, NM 87035
Attn.: Regional Manager

Bureau of Indian Affairs
Hopi Agency
P.O. Box 158
Keams Canyon, AZ 86034
Attn.: Regional Manager

The Navajo Tribe
P.O. Box 1910
Window Rock, AZ 86515
Attn.: Minerals Dept.

The Hopi Tribe
P.O. Box 123
Kykotsmovi, AZ 86039
Attn.: Mr. Norman Honie, Jr.

Navajo Tribal Utility Authority
P.O. Box 170
Ft. Defiance, AZ 86504

Navajo Communications Telephone Co.
P.O. Drawer 1600
Window Rock, AZ 86515

Frontier Communication Co.
P.O. Box 6000
Window Rock, AZ 86515

Kayenta School District
P.O. Box 337
Kayenta, AZ 86033
Attn.: Transportation Dept.

AUG 2011
APPROVED

Black Mesa Review Board
Attn: Chairman
P.O. Box 1088
Kayenta, AZ 86033

Calvin Etsitty & Family
P.O. Box 505
Kayenta, AZ 86033

Eli Crank & Family
P.O. Box 463
Kayenta, AZ 86033

Lilly Crank & Family
P.O. Box 463
Kayenta, AZ 86033
*(Hand Deliver)*

Paul & Thelma Johnson & Family
P.O. Box 301
Kayenta, AZ 86033

Pauletta Russell & Family
P.O. Box 301
Kayenta, AZ 86033

Billy & Sally Chief & Family
P.O. Box 1332
Kayenta, AZ 86033

Simon & Irene Crank & Family
P.O. Box 93
Kayenta, AZ 86033

Thomas Crank & Family
P.O. Box 93
Kayenta, AZ 86033

Milton Lake & Family
P.O. Box 1006
Kayenta, AZ 86033

Earl & Ancita Kescoli & Family
P.O. Box 1378
Kayenta, AZ 86033
*(Hand Deliver)*

Lorraine Vandever
P.O. Box 514
Kayenta, AZ 86033

Ben Jim & Family
P.O. Box 93
Kayenta, AZ 86033

Robert Crank & Family
P.O. Box 93
Kayenta, AZ 86033

Phillip Etsitty & Family
P.O. Box 505
Kayenta, AZ 86033

Ophelia & Leslie Etsitty & Family
P.O. Box 505
Kayenta, AZ 86033

Rose Farley & Family
HCR Box 38-1043
Teec Nos Pos, AZ 86514

Priscilla Yazzie & Family
P.O. Box 1657
Kayenta, AZ 86033
(Deceased May,2001)

Sadie Kelly & Family
P.O. Box 1657
Kayenta, AZ 86033

Bah Begay & Family
Rough Rock Trading Post
Chinle, AZ 86503
*(Hand Deliver)*

Mabel Thomas & Family
P.O. Box 1456
Winslow, AZ 86047

Elsie Vandever & Family
P.O. Box 1428
Kayenta, AZ 86033

Lillie Johnson & Family
P.O. Box 1135
Kayenta, AZ 86033

Harrison Crank & Family
P.O. Box 1942
Kayenta, AZ 86033
*(Hand Deliver)*

Annie Herrera & Family
P.O. Box 977
Kayenta, AZ 86033

AUG 2011
APPROVED

Clarence Lake & Family
P.O. Box 1999
Kayenta, AZ 86033

Daniel Benally & Family
P.O. Box 433
Kayenta, AZ 86033

Ated Lake & Family
P.O. Box 1412
Kayenta, AZ 86033

Maxine Kescoli & Family
P.O. Box 1165
Pinon, AZ 86510
*(Hand Deliver)*

James & Inez Cody & Family
P.O. Box 1745
Kayenta, AZ 86033

Leonard Honnie, Jr. & Family
P.O. Box 2305
Kayenta, AZ 86033

Mr. & Mrs. Ron Lane & Family
P.O. Box 335
Kayenta, AZ 86033

Mr. & Mrs. Charles Kee & Family
P.O. Box 1657
Kayenta, AZ 86033

H. Blackrock & Family
P.O. Box 461
Tuba City, AZ 86045

John Bahe & Family
P.O. Box 1211
Kayenta, AZ 86033

Betty Crank & Family
P.O. Box 2123
Kayenta, AZ 86033

Irene Becenti & Family
P.O. Box 1506
Kayenta, AZ 86033

Fenae Tallman & Family
P.O. Box 2566
Shonto, AZ 86054

Albert Crank & Family
P.O. Box 3124
Kayenta, AZ 86033

Bessie Luna & Family
P.O. Box 1763
Kayenta, AZ 86033

Alta Rose Albert & Family
P.O. Box 755
Kayenta, AZ 86033

Kornelia & Carol Tallman & Family
P.O. Box 481
Kayenta, AZ 86033

Anita Lake Yazzie & Family
P.O. Box 846
Kayenta, AZ 86033

Joe Lake & Family
P.O. Box 839
Kayenta, AZ 86033

Joanne Cody & Family
P.O. Box 451
Kayenta, AZ 86033

AUG 2011
APPROVED

Lake Family
P.O. Box 644
Kayenta, AZ 86033

Eugene Leonard & Family
P.O. Box 1312
Kayenta, AZ 86033

Rose Yazzie & Family
P.O. Box 1275
Kayenta, AZ 86033

Johnson Crank & Family
P.O. Box 141
Kayenta, AZ 86033

Ned Yazzie & Family
P.O. Box 211
Kayenta, AZ 86033
Hand Delivery

Mrs. Walter Begay, Sr. & Family
P.O. Box 246
Kayenta, AZ 86033

Woodie Anderson/Victoria L. Tso
& Family
P.O. Box 102
Kayenta, AZ 86033

Alice Tso & Family
P.O. Box 1407
Kayenta, AZ 86033

Benny Etsitty & Family
P.O. Box 133
Pinon, AZ 86510

Ned K. Benally & Family
P.O. Box 129
Pinon, AZ 86510

Martha Chee & Family
P.O. Box 1361
Pinon, AZ 86510

Susie Yazzie & Family
P.O. Box 3147
Kayenta, AZ 86033

George & Mae Pulinos & Family
P.O. Box 1907
Kayenta, AZ 86033

Ruby Ralph & Family
P.O. Box 2272
Kayenta, AZ 86033

John Billy Tsosie & Family
P.O. Box 805
Kayenta, AZ 86033

Alice Yazzie & Family
P.O. Box 183
Kayenta, AZ 86033

Billy Austin & Family
P.O. Box 1126
Kayenta, AZ 86033

Julia Jane Russell & Family
P.O. Box 1583
Kayenta, AZ 86033

Edward Begay Sr. & Family
P.O. Box 1017
Winslow, AZ 86047

Jacqueline Boyd & Family
General Delivery
Kayenta, AZ 86033
Hand Delivery

AUG 2011
APPROVED

Lucille Benally & Family
Black Mesa S.C.
Tonalea, AZ 86044

Kevin Manymules & Family
3240 W. Brenda Loop
Flagstaff, AZ 86004
(Hand Delivery)

Laurinda Lake & Family
P.O. Box 1102
Flagstaff, AZ 86002

Lavonne Segay & Family
P.O. Box 1998
Kayenta, AZ 86033

Leta Tsosie Williams & Family
P.O. Box 1247
Kayenta, AZ 86033

Nancy M. Yazzie & Family
9600 E. Jesse Dr.
Flagstaff, AZ 86004

Ataid Y. Lake & Family
P.O. Box 1142
Kayenta, AZ 86033
Hand Delivery

Sam Lake & Family
P.O. Box 1412
Kayenta, AZ 86033

Marie Lake & Family
4575 West 1215 South
Cedar City, UT 84720

Darren Bizardi & Family
2054 Juneau St.
San Lendro, CA 94577

Kee Crank & Family
359 N. 3rd W.
Rigby, Idaho 83442

Sarah Kee & Family
144 Granada Dr.
Mtn. View, CA 94043

Francis Lake & Family
P.O. Box 2066
Kayenta, AZ 86033

Jacqueline Piper & Family
155 Beech
Gardner, KS 66030

Mary Begay Gilmore & Family
P.O. Box 1531
Kayenta, AZ 86033

Victoria Lynn Tso & Family
P.O. Box 102
Kayenta, AZ 86033

Lena Lake & Family
P.O. Box 1243
Kayenta, AZ 86033

Esther Lake & Family
P.O. Box 2026
Kayenta, AZ 86033

Molita Lake & Family
P.O. Box 1693
Kayenta, AZ 86033

Lena Sansosie & Family
P. O. Box 2572
Kayenta, AZ 86033

AUG 2001
APPROVED

Mardel Monroe & Family
P.O. Box 1077
Kayenta, AZ 86033
Hand Delivery

Willis K. Begay & Family
P.O. Box 927
Pinon, AZ 86510

Mary Ann Sherlock & Family
P.O. Box 2144
Kayenta, AZ 86033

Perry & Corraine Roan & Family
P.O. Box 1353
Pinon, AZ 86510

Kee John Kescoli & Family
P.O. Box 1941
Kayenta, AZ 86033

Alice J. Begay & Family
P.O. Box 1362
Kayenta, AZ 86033

AUG 2011
APPROVED

ATTACHMENT 3

PREBLAST SURVEY NOTICE

# PEABODY COAL COMPANY

**ARIZONA DIVISION**

1300 SOUTH YALE
FLAGSTAFF, ARIZONA 86001
TELEPHONE (602) 774-5253


January 11, 1985

Mr. Roy Tso
P.O. Box 1407
Kayenta, AZ 86033

RE: INSTRUCTIONS FOR REQUESTING A PRE-BLAST SURVEY
(IN ACCORDANCE WITH 30 CFR 816.62)

Dear Mr. Tso:

Peabody Coal Company plans to initiate blasting in the J-21 mining area, located approximately two miles southeast of the new Kayenta Mine office, on February 13, 1985. A resident or owner of a dwelling or structure within one-half mile of any part of permit area AZ-0002A may request a pre-blast survey. This request shall be made, in writing, directly to Peabody Coal Company, Post Office Box 605, Kayenta, Arizona 86033, or to the Office of Surface Mining, Administrator, Western Technical Center, Brooks Towers, 1020 Fifteenth Street, Denver, Colorado 80202. Additional clarifications can be obtained by telephoning Fred Fest at 774-5253, Sam Shiflett or Sil Perla at 677-3201.

The request must state the name and mailing address of the resident(s) or owner(s), specific identification and location of the dwelling(s) and/or structure(s) to be surveyed and shall be signed by the requestor.

Peabody shall determine the condition of the interior and exterior of the dwelling or structure and will provide a written report signed by the person who conducted the survey. If the person requesting the survey disagrees with the contents and/or recommendations contained in the report, a detailed description of the specific areas of disagreement may be submitted to both Peabody Coal Company and the Office of Surface Mining.

Any surveys requested more than 10 days before planned initiation of blasting shall be completed by Peabody Coal Company before the initiation of blasting.

A blasting schedule is attached for your information.

Sincerely,

Fred Fest

Fred W. Fest, III
Manager
Compliance Engineering

dd

Attachment

# BLASTING SCHEDULE NOTICE

Peabody Coal Company hereby provides notice of its blasting schedule for the Black Mesa and Kayenta Mines located approximately 18 miles southwest of Kayenta, address being Post Office Box 605, Kayenta, Navajo County, Arizona 86033 (telephone 602-677-3201). This notice is provided in accordance with Public Law 95-87.

During the period January 1, 1985, through January 1, 1986, blasting of overburden will occur between sunrise and sunset, Mondays through Saturdays. If, in the opinion of authorized personnel, conditions exist which may constitute a safety hazard, then blasting of overburden may be accomplished at other times. Blasting of coal and parting materials may occur at any time.

Access to the blasting area is controlled by physically clearing and removing all unauthorized persons and by the location of appropriate barricades, blockers, flags and blasting area signs prior to a shot being fired. Before each blast, an audible warning of ten continuous blows from an air horn will be issued. After each blast, an audible all-clear signal of one long continuous blow from an air horn will be issued.

Blasting will primarily occur at six active mining areas. Each blasting area is contained within T35 and 36N-R18 and 19E of Navajo County, Arizona, more particularly described below. Initiation of blasting in mining areas not covered by this notice will require issuance of a new notice.

N-7 and N-8 Pits -- Blasting can occur on lands generally located ten and one-quarter miles northwest of the new Kayenta Mine office in Sections 6 and 7, T36N-R18E;

N-14 Pit -- Blasting can occur on lands generally located three miles northwest of the new Kayenta Mine office in Sections 16, 17, 18, 19, 20 and 21, T36N-R19E;

J-16 Pit -- Blasting can occur on lands generally located one and one-half miles west of the new Kayenta Mine office in Sections 27, 28, 29, 32, 33 and 34, T36N-R19E;

J-21 Pit -- Blasting can occur on lands generally located two miles southeast of the new Kayenta Mine office in Sections 1, 2, 3, 10, 11 and 12, T35N-R19E;

J-7 Pit -- Blasting can occur on lands generally located two and one-quarter miles south of the Black Mesa Mine office in Sections 26, 27 and 28, T35N-R18E;

J-1/N-6 Pits -- Blasting can occur on lands generally located six and one-half miles northwest of the new Kayenta Mine office in Sections 15, 16, 21, 22, 23, 26, 27 and 28, T36N-R18E.

P 489 843 946

**RECEIPT FOR CERTIFIED MAIL**

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

*(See Reverse)*

| | |
|---|---|
| Sent to Mr Roy Tso | |
| Street and No. PO Box 1407 | |
| P.O., State and ZIP Code Kayenta AZ 86033 | |
| Postage | $ |
| Certified Fee | ✓ |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to whom and Date Delivered | |
| Return Receipt Showing to whom, Date, and Address of Delivery | ✓ |
| TOTAL Postage and Fees | $ |
| Postmark or Date 1-11-85 | |

preblast survey

PS Form 3800, Feb. 1982

PS Form 3811, July 1983

**SENDER: Complete items 1, 2, 3 and 4.**

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
MR. Roy Tso
PO Box 1407
Kayenta AZ 86033

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number: P 489 843 946

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X [signature]

7. Date of Delivery
1-16-85

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

ATTACHMENT 4

BLASTING SURVEYS

PEABODY

NOTICE OF MINING

TO: Priscella Yazzie
P.O. Box 1657
Kayenta, Az. 86033

You are hereby given notice that Peabody intends to begin mining in the area indicated on the attached map on the following date:

Have already begun mining.

If you own property or improvements within or half a mile of this area, your property or improvements will be affected by the mining operation and you have the right to request for a pre-blasting inspection of your property or improvements before mining begins, and if any of these properties or improvements are in the way of the mining, it must be moved and relocated out to any area not affected by mining.

I, Priscilla Yazzie, received and understand fully the content of the above notice, and I hereby [X] give my consent; [ ] will not consent to have a pre-blasting inspection done on my property or improvements.

Priscilla Yazzie
Signature

8-1-85
Date

WITNESS:
Charles A. Kee
Sarah M. Kee
Mae Begay

# PEABODY COAL COMPANY

301 NORTH MEMORIAL DRIVE — P.O. BOX 235 - ST. LOUIS, MISSOURI 63166

## CONDITION REPORT

Location: NW 1/4 / NE 1/4 ; SEC 2, T35N, R19E  Date: 9-4-85

File Number: 152-86562-BSE  Time: 10:30 Am

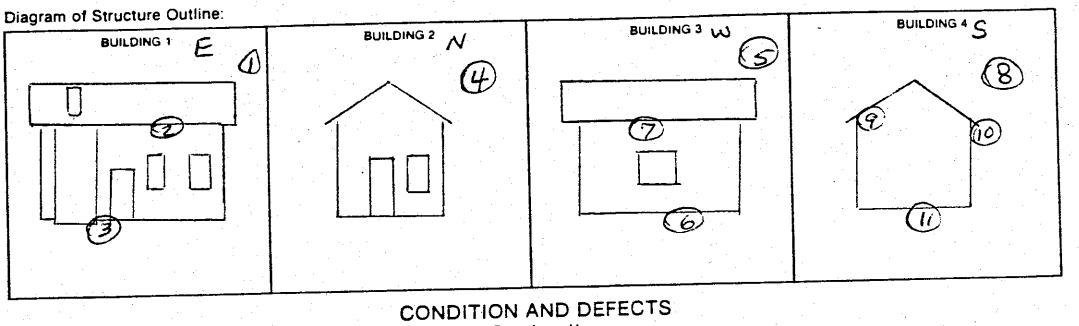
Property Address: P.O. Box 1657 (Number, Street), KAYENTA (City), AZ. (County) 86033 (State)

Occupant(s): —

Owner: PRICELLA YAZZIE  Mailing Address: SAME

Residential ☒ Mercantile ☐ Farm ☐ Other ☐

Diagram of Structure Outline:




## CONDITION AND DEFECTS
### Section II

Building No. 1  Frame ☒ Brick ☐ Brick Veneer ☐ Stucco ☐
Metal ☐ Other ☐ _____ (DESCRIBE)

Type: Dwelling ☒ Garage ☐ Shed ☐ Other ☐ _____ (DESCRIBE)

Number Stories: 1  Overall Condition: Good ☒ Average ☐ Poor ☐

| EXTERIOR | (Material) | (Condition) |
|---|---|---|
| Roof | CEDAR SHAKE | GOOD (NEW HOUSE) |
| Siding | COMP. PANEL | GOOD |
| Door/Windows | ALUMINUM FRAME | GOOD |
| Chimneys | STEEL PIPE | GOOD |
| Floors | CONCRETE SLAB | GOOD |
| Porch (es) | CONCRETE | GOOD |

Roof Drainage Adequate Yes ☒ No ☐  Porch(es) Yes ☒ No ☐

Condition Downspout - Leaking Yes ☐ No ☐ None ☒

Condition Drain Tile - Leaking Yes ☐ No ☐ None ☒

Downspouts Drain To: Earth ☒ Sewers ☐ Catch Basin ☐ Splash ☐

How Far Drainage Carried From Foundation 2 Feet

Location Downspouts N/A

Natural Lot Drainage Flows N. ☐ S. ☒ W. ☐ E. ☐

Is Erosion Visible Within Two Feet of Foundation? Yes ☐ No ☒

Is Settlement Visible Around Foundation? Yes ☐ No ☒

Has Drainage Contributed to Building Settlement? Yes ☐ No ☒

What Area of Building? _____

Water Supply: Type _____ Condition _____

COMMENTS: HOUSE OCCUPIED IN MAY, 1985. HOUSE IS ONLY 3 MONTHS OLD. ASIDE FROM SOME DAMAGE TO VENEER DURING INSTALLATION, WE FOUND NO CRACKING OR OTHER DAMAGE TO EXTERIOR. WE FOUND SOME SEPARATION IN EVE JOINTS. WOOD STRUCTURE WITH SOME SPLIT EVE HEADERS AND RAFTERS.

Form 1151

## INTERIOR CONDITION
Section IV

| | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| Room LIVING ROOM | | (12) SOME MORTAR MISSING O.J BRICK BEHIND STOVE | Material SHEETROCK | | |
| Room BEDROOM | | (14) | Material SHEETROCK | | |
| Room BATHROOM | | | Material SHEETROCK | | |
| Room BEDROOM | | (13) | Material SHEETROCK | | |
| Room BEDROOM | | | Material SHEETROCK | | FLOOR (15) |
| Room KITCHEN | CABINETS (16) | | Material SHEETROCK | | |
| Room LAUNDRY | | | Material SHEETROCK | | |
| Room | | | Material | | |
| Room | | | Material | | |

- Rectangles indicate Windows and Doors
- Wavy Lines indicate Cracking of Wall Covering Material

NOTE: Repeat Sections II, III, and IV for Each Additional Building at this Location.

COMMENTS: INTERIOR OF HOUSE BASICALLY NOT OCCUPIED YET. OCCUPANT MOVING IN. CABINETS IN KITCHEN HAVE LARGE SEPARATION AT N/E CORNER. UTILITY/WATER AND SEPTIC NOT ATTACHED TO HOME. NO WATER TANK. WATER HAULED AND NO SEWER.

MORTAR IS MISSING OR LIGHT IN SOME SPOTS BEHIND THE WOOD STOVE IN BRICKWORK.

Inspector [signature] Copy given to Owner Yes ☒ No ☐

COMPANY WILL SEND

PEABODY COAL COMPANY

WATER WELL SURVEY

NAME: PRISCELLA YAZZIE ADDRESS: P.O. BOX 1657, KAYENTA, AZ, 86033

Water Supply- PEABODY

Well ( ) Cistern ( ) Pond ( ) Other (HAULED)

Age ( ) Drilled ( ) Dug ( ) Augered ( )

Total depth ( )ft // Depth to water (static level) ( )ft

Casing (size and type) N/A

Gravel pack ( ) Thickness and composition N/A

Driller N/A Date drilled

Capacity test made ( ) // When:

Done by:

Results:

Pump/Plumbing

Pump type ( ) Pump depth ( )ft

Replacement or service:

Brief description of water system (pipe material, tanks, etc)

USING BARREL AND GETTING WATER AS NEEDED

Quantity-

Capacity (if known): Approximate discharge: gpm

Ever haul water or lose supply: USING BARRELS

Seasonal fluctuations: N/A

Comsumption: Persons (7) Flush toilet (/) Shower/bathtub (/)

Automatic washer ( ) Dishwasher ( ) Livestock (CATTLE/SHEEP)

Garden/lawn watering ( ) Other uses( )

Recent changes in use ( ) Date ( )Increase/Decrease

Details:

Water Quality-

Taste/Odor ( — ) Sand ( — ) Color ( — )

Other ( )

Factors affecting quality:

Water sample yes ( ) no ( )

Historical Data and Previous Performance (give details):-

NO SEPTIC OR RUNNING WATER - WATER IS HAULED AS NEEDED, THE OCCUPANT IS NOT USING PLUMBING AS NONE IS HOOKED UP, THERE IS NO SEPTIC TANK, OR FRESH WATER HOLDING TANK AS YET.

FORM 1107 - 6/82

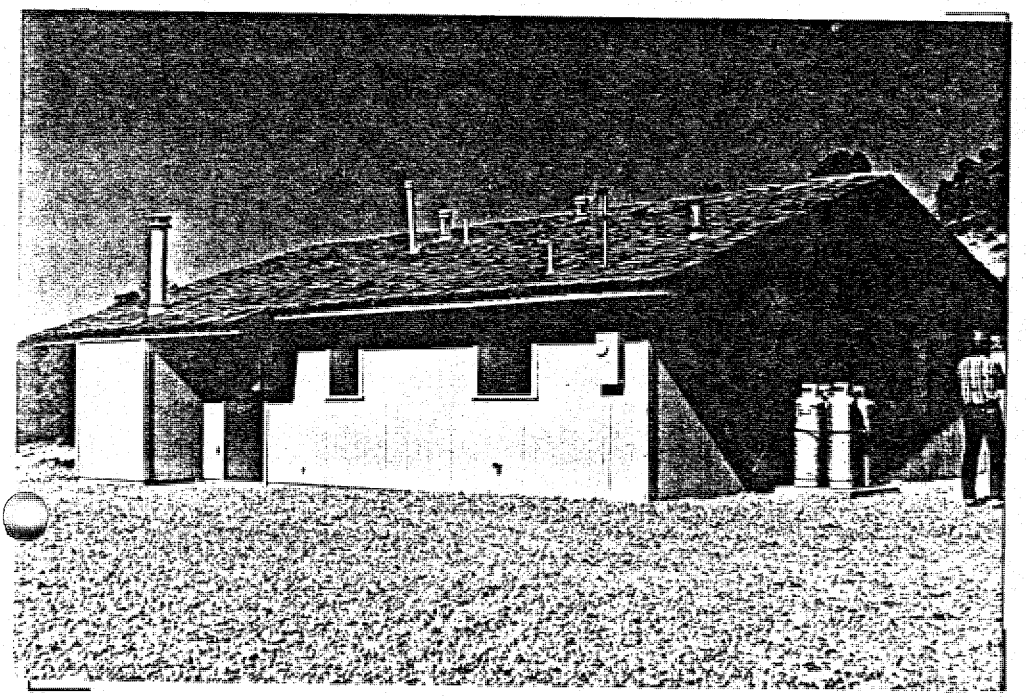
# PHOTO MOUNTING SHEET

Insured/Owner PRISCILLA YAZZIE

Company Claim No. — Policy No.

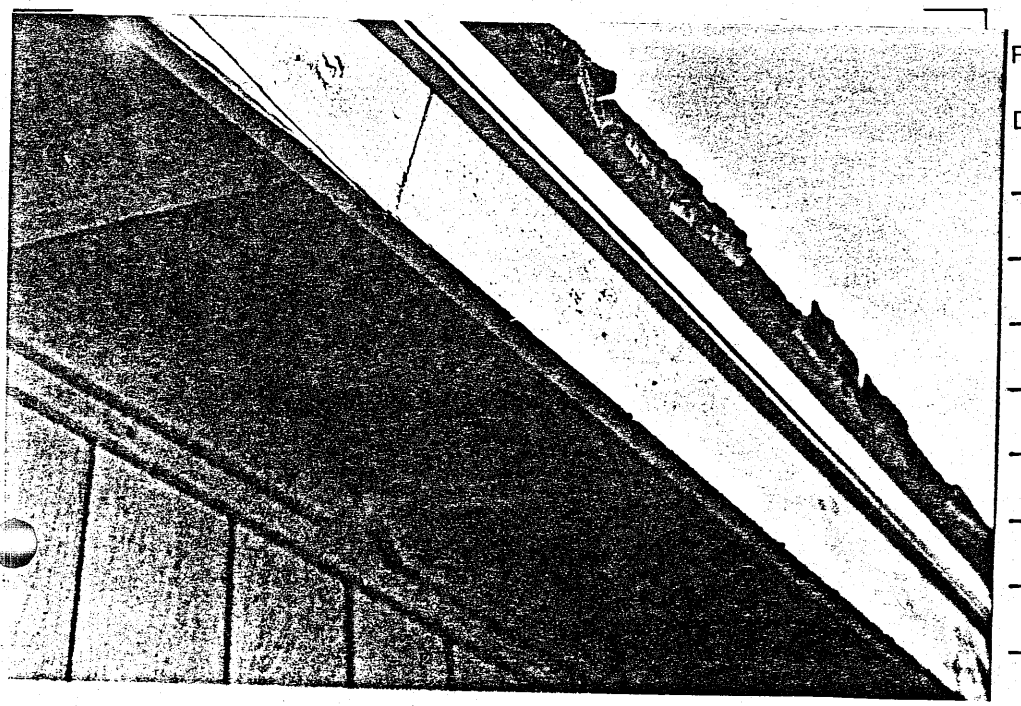
Our File No. 152-86567-BSF Date Taken 9-4-85

Film — Polaroid ☐ Negative ☒ Adjuster BSF



PICTURE NUMBER 1

DESCRIPTION N. E. CORNER



PICTURE NUMBER 2

DESCRIPTION EVE SPLIT

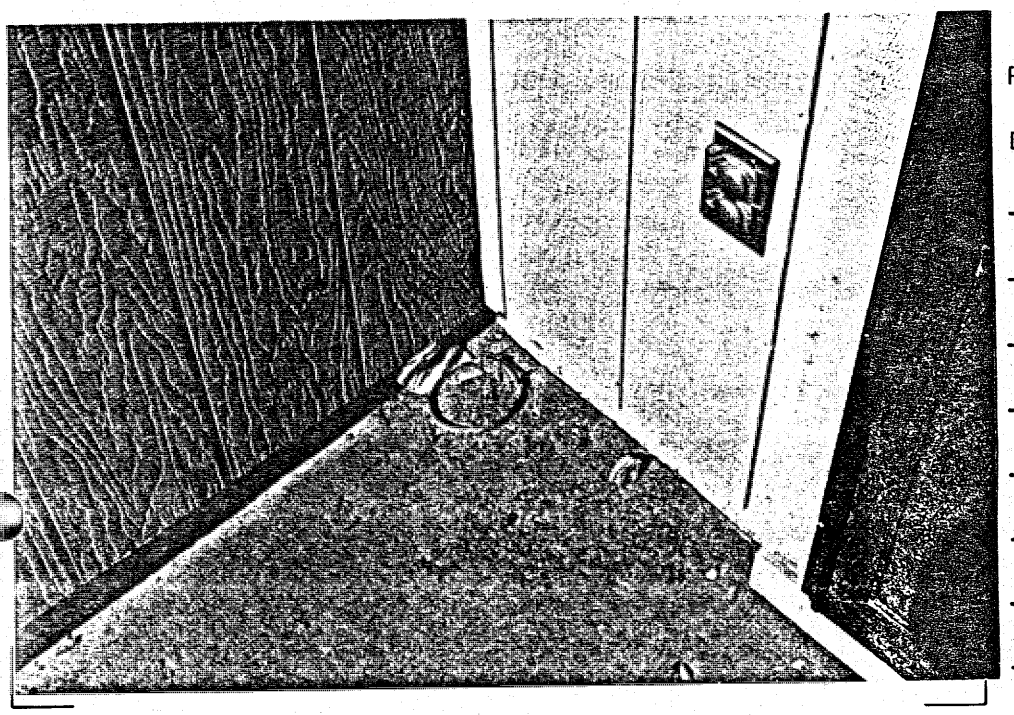
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

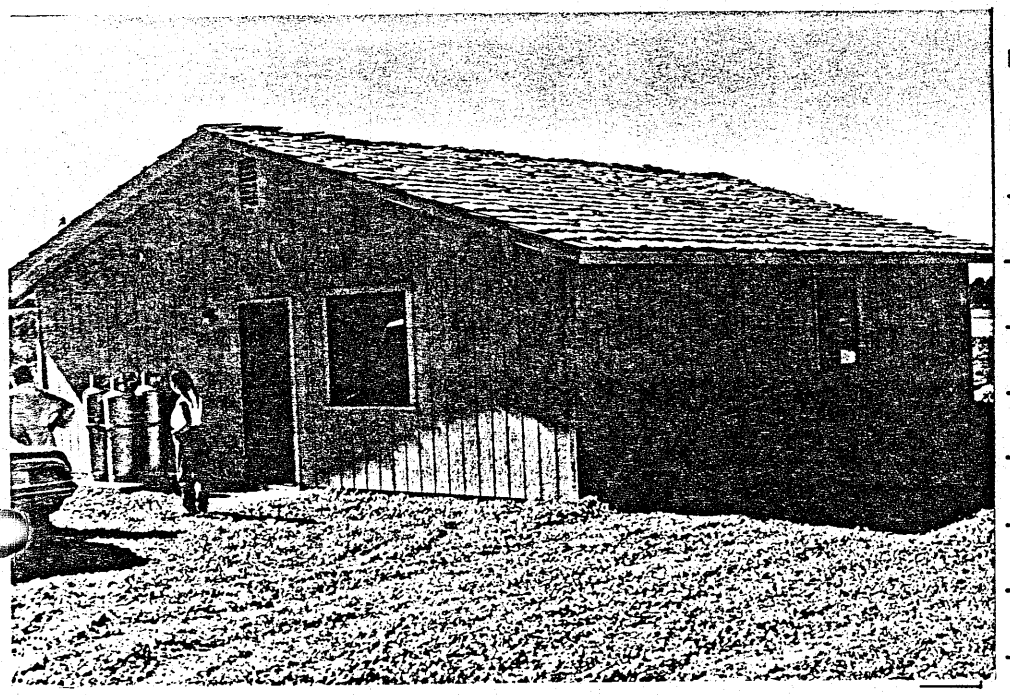
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 3

DESCRIPTION FOUNDATION CRACK AT F-DOOR



PICTURE NUMBER 4

DESCRIPTION N.W. CORNER

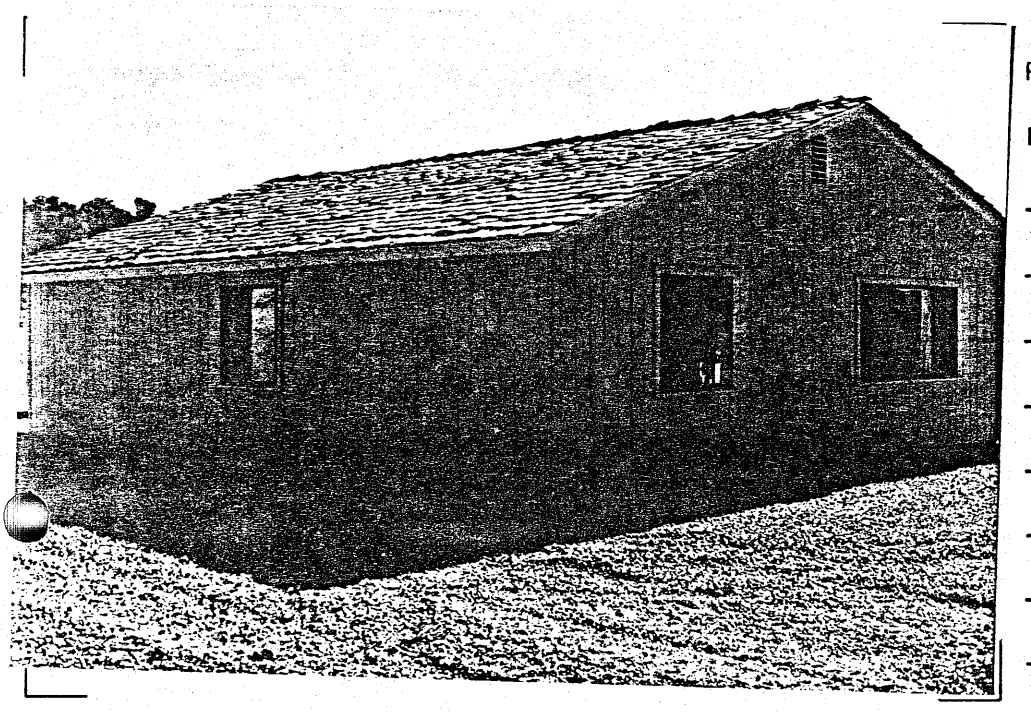
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

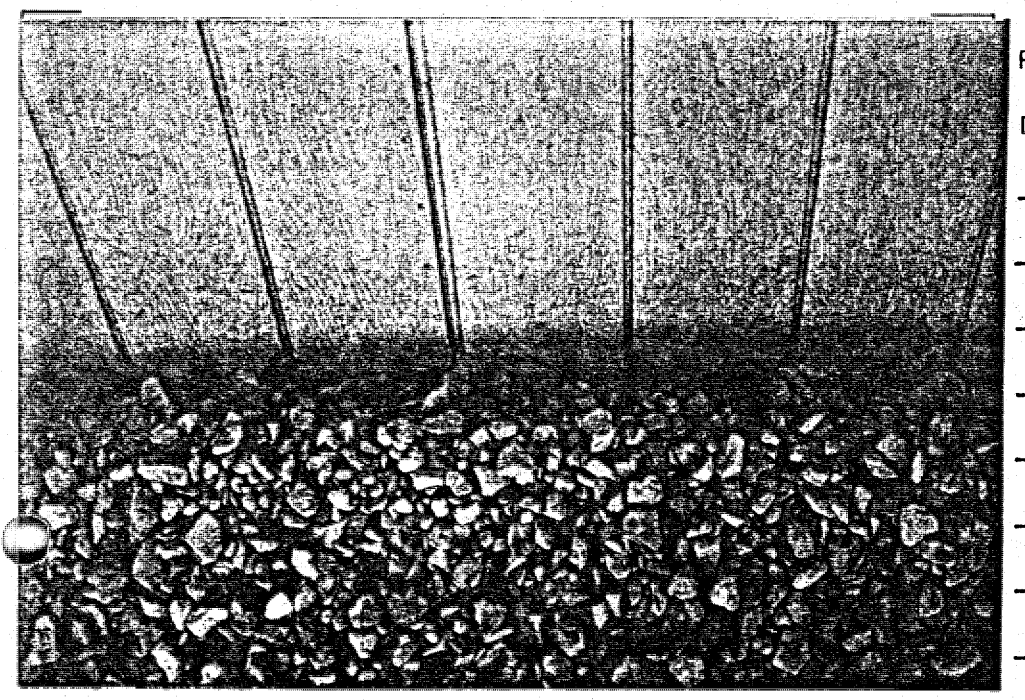
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 5

DESCRIPTION S.W. CORNER



PICTURE NUMBER 6

DESCRIPTION BROKEN PANELING - W. SIDE

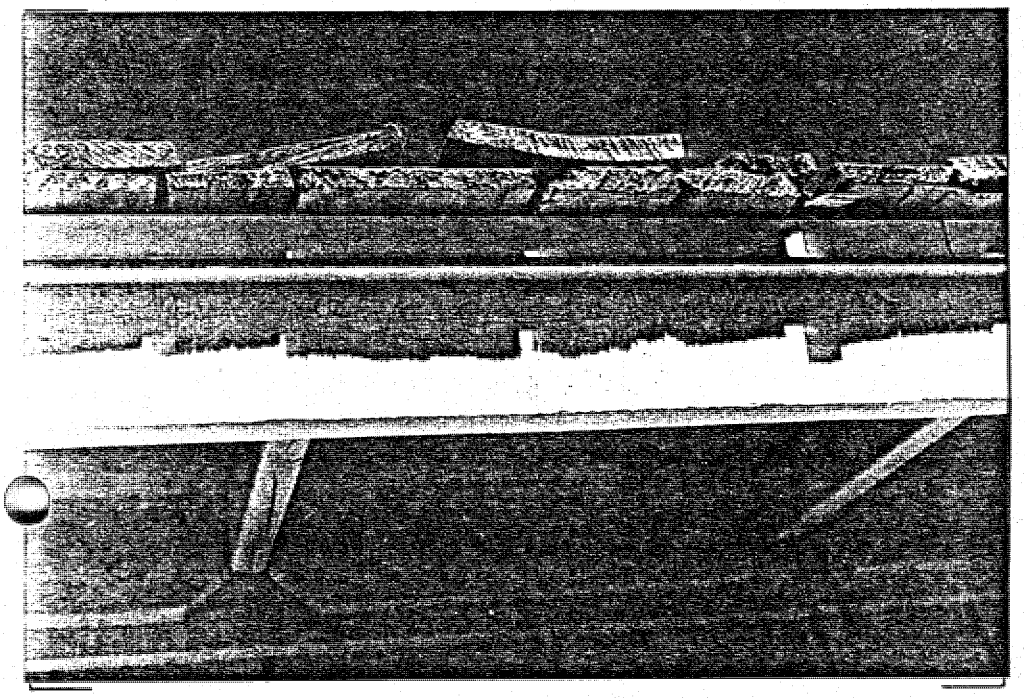
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

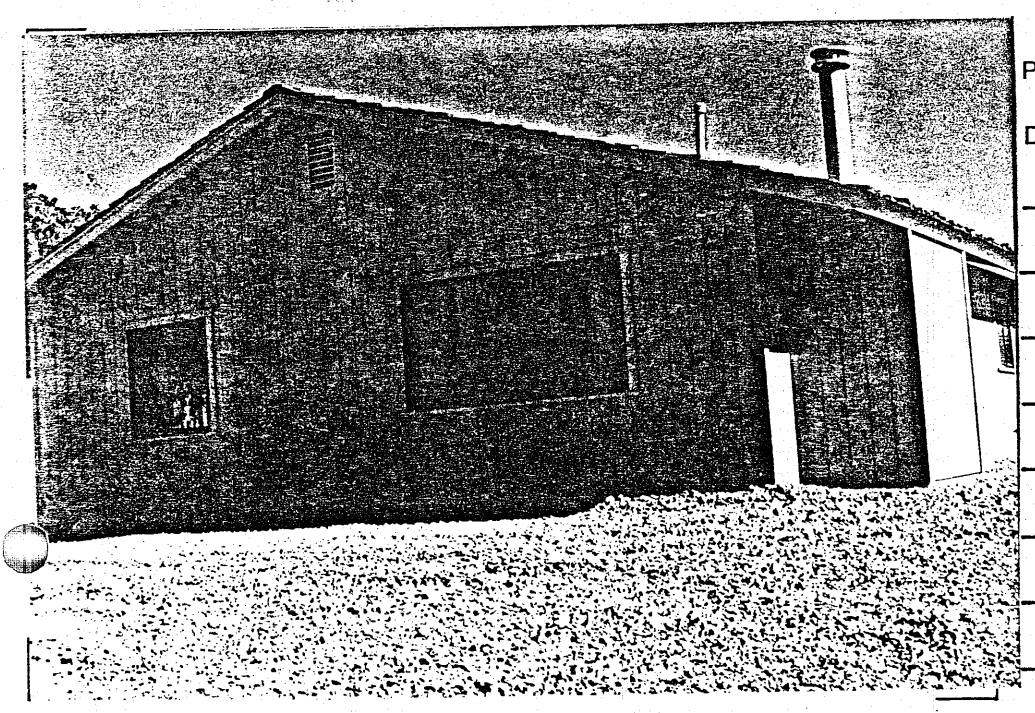
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 7

DESCRIPTION SPLIT FACIA - W/SIDE



PICTURE NUMBER 8

DESCRIPTION S.E. CORNER

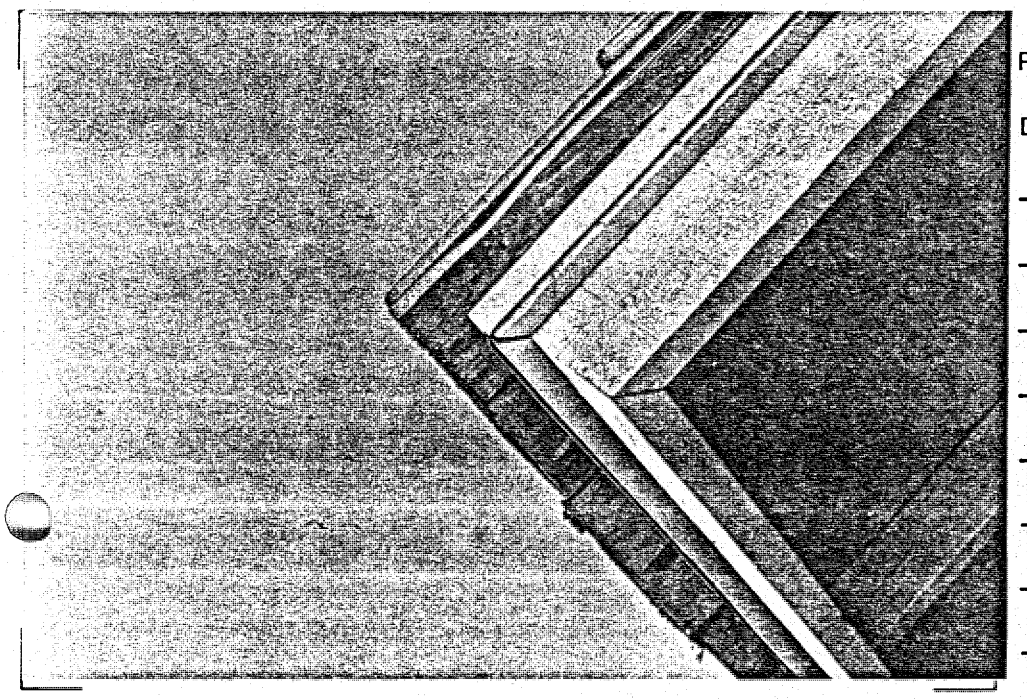
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

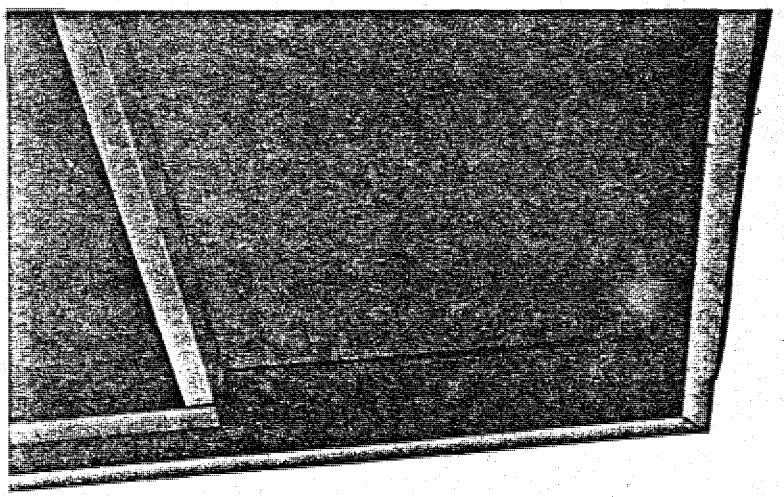
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 9

DESCRIPTION S.W. EVE SEPARATION



PICTURE NUMBER 10

DESCRIPTION S.E. EVE TO ROOF (SUB ROOF) SEPARATION

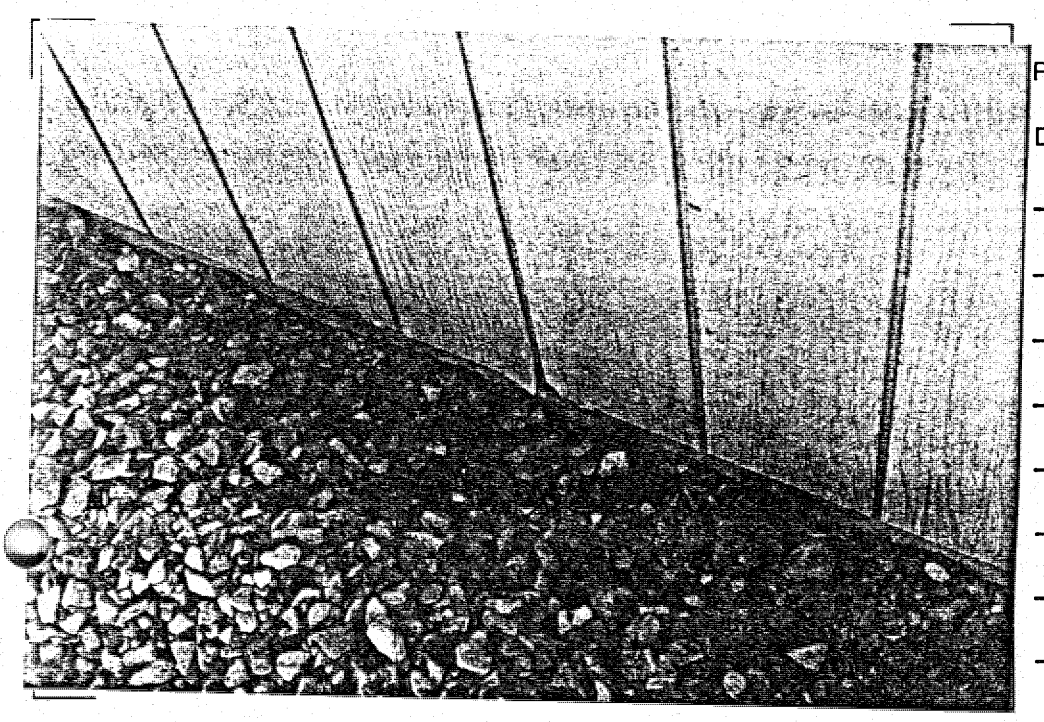
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

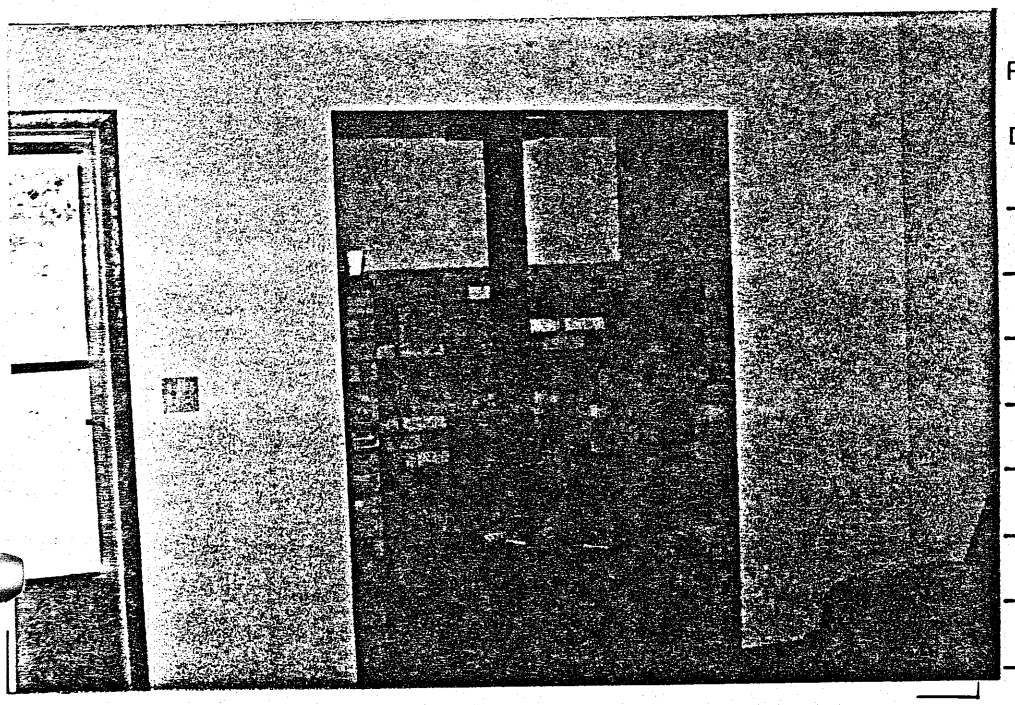
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 11

DESCRIPTION SOUTH SIDE BROKEN PANELING



PICTURE NUMBER 12

DESCRIPTION LIVING AREA - SEE TO WOOD STOVE

# PHOTO MOUNTING SHEET

Insured/Owner _____

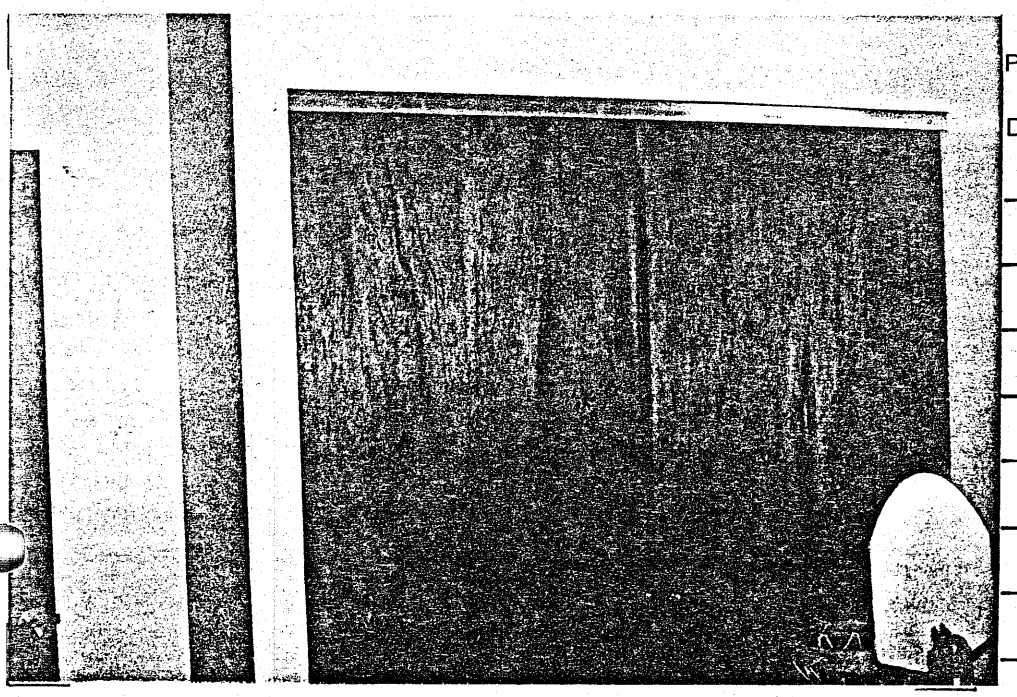
Company Claim No. _____ Policy No. _____

Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____

PICTURE NUMBER 13

DESCRIPTION Bedroom - 1



PICTURE NUMBER 14

DESCRIPTION Bedroom - 2

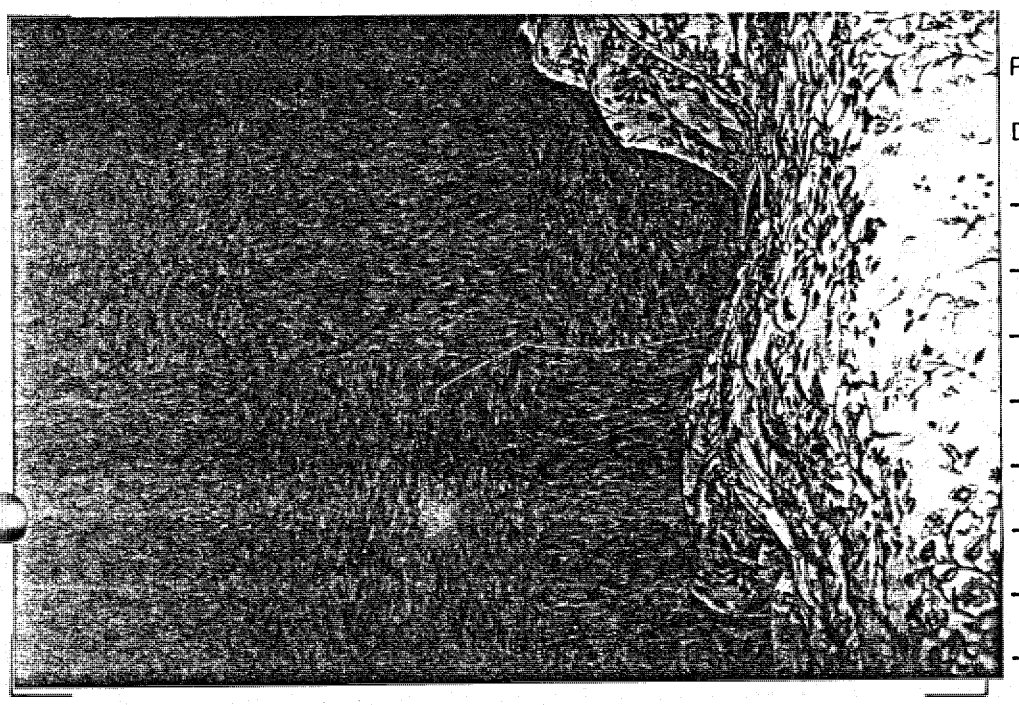
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

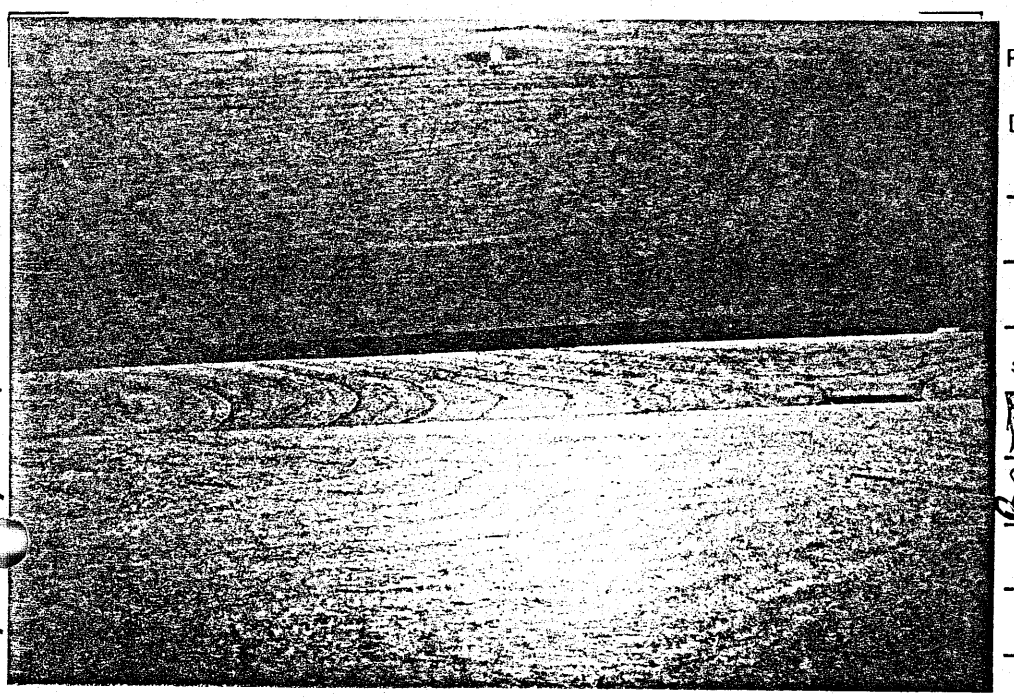
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 15

DESCRIPTION BEDROOM-3



PICTURE NUMBER 16

DESCRIPTION KITCHEN CABINETS SEPARATION AT BASE.

TOP

BOTTOM

PEABODY

NOTICE OF MINING

TO: Sadie and Preston Kelly
P.O. Box 1657
Kayenta, Az. 86033

You are hereby given notice that Peabody intends to begin mining in the area indicated on the attached map on the following date:
Have already begun mining

If you own property or improvements within or half a mile of this area, your property or improvements will be affected by the mining operation and you have the right to request for a pre-blasting inspection of your property or improvements before mining begins, and if any of these properties or improvements are in the way of the mining, it must be moved and relocated out to any area not affected by mining.

I, Sadie Y. Kelly, received and understand fully the content of the above notice, and I hereby [X] give my consent; [ ] will not consent to have a pre-blasting inspection done on my property or improvements.

Sadie Y. Kelly
Signature

Aug. 23 1985
Date

WITNESS:

_____

_____

_____

# PEABODY COAL COMPANY

301 NORTH MEMORIAL DRIVE — P.O. BOX 235 - ST. LOUIS, MISSOURI 63166

## CONDITION REPORT

Location: NW ¼, NW ¼ SEC 2, T35N, R19E  Date: 9-4-85

File Number: 152-86568-BSE  Time: 11:15 Am

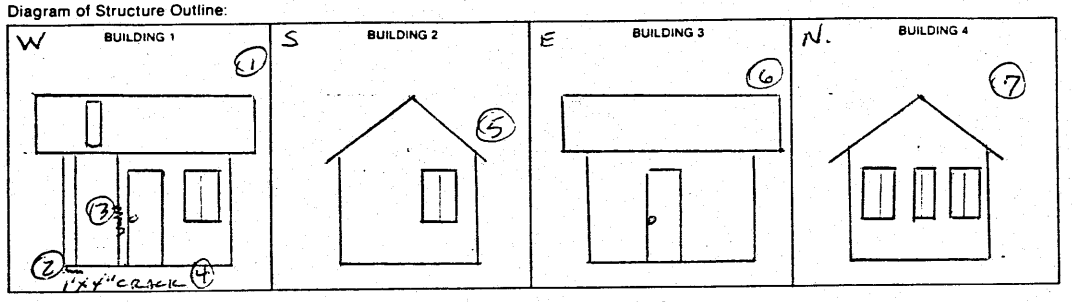
Property Address: ABOVE
Number  Street  City  County  State

Occupant(s): SADIE KELLY

Owner: SAME  Mailing Address: PO. BOX 1657, KAYENTA, AZ. 86033

Residential ☒ Mercantile ☐ Farm ☐ Other ☐

Diagram of Structure Outline:




## CONDITION AND DEFECTS
### Section II

Building No. _____ Frame ☒ Brick ☐ Brick Veneer ☐ Stucco ☐
Metal ☐ Other ☐ _____ (DESCRIBE)

Type: Dwelling ☒ Garage ☐ Shed ☐ Other ☐ _____ (DESCRIBE)

Number Stories: _____ Overall Condition: Good ☒ Average ☐ Poor ☐

| EXTERIOR | (Material) | (Condition) |
|---|---|---|
| Roof | CEDAR SHAKE | GOOD (NEW) |
| Siding | COMP. PANEL | GOOD |
| Door/Windows | ALUMINUM FRAME | GOOD |
| Chimneys | STEEL PIPE | GOOD |
| Floors | CONCRETE SLAB | GOOD |
| Porch (es) | CONCRETE | GOOD |

Roof Drainage Adequate Yes ☒ No ☐ Porch(es) Yes ☒ No ☐

Condition Downspout - Leaking Yes ☐ No ☐ None ☒

Condition Drain Tile - Leaking Yes ☐ No ☐ None ☒

Downspouts Drain To: Earth ☒ Sewers ☐ Catch Basin ☐ Splash ☒

How Far Drainage Carried From Foundation 2 Feet

Location Downspouts N/A

Natural Lot Drainage Flows N. ☒ S. ☐ W. ☐ E. ☐

Is Erosion Visible Within Two Feet of Foundation? Yes ☐ No ☒

Is Settlement Visible Around Foundation? Yes ☒ No ☐

Has Drainage Contributed to Building Settlement? Yes ☐ No ☒

What Area of Building? _____

Water Supply: Type HAULED AS NEED Condition GOOD

COMMENTS: CRACK IN FOUNDATION AT N/E CORNER. HOME IS NOT OCCUPIED AS YET. THERE IS NO ELECT. POWER YET. WATER IS NOT CONNECTED TO TANK. NO EXTERNAL SEWER OR SEPTIC TANK. BATHROOM AND KITCHEN FIXTURES NOT DRAINED TO OUTSIDE RECEPTICAL. PANEL SEPARATION ON FIREPLACE - R-SIDE NEXT TO F-DOOR. BROKEN PANEL UNDER F-WINDOW

Form 1151

INTERIOR CONDITION
Section IV

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| LIVING ROOM | | | Material SHEETROCK | | |
| | | | | 10 | |
| | | | | WOOD STOVE | |

- Rectangles indicate Windows and Doors
- Wavy Lines indicate Cracking of Wall Covering Material

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| KITCHEN | | | Material SHEETROCK | | |
| CAB | CAB | | | | |
| CABINETS | | | | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| LAUNDRY | | | Material SHEETROCK | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| BEDROOM | | | Material SHEETROCK | | |
| | | | | 12 | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| BEDROOM | | | Material | SHEETROCK | |
| 13 | | | | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| BATHROOM | | | Material SHEETROCK | | |
| | 11 | | | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| HEAT | | | Material | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| | | | Material | | |

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| | | | Material | | |

NOTE: Repeat Sections II, III, and IV for Each Additional Building at this Location.

COMMENTS: INTERIOR IN GOOD CONDITION - HOUSE IS NOT OCCUPIED AS YET, MOST OF THE BASEBOARDS HAVE GAPS UNDERTHEM AT TILE.

NO WATER OR ELECTRIC IN HOME NO SEWER EITHER

Inspector BRUCE STANE Copy given to Owner Yes ☐ No ☑

CO. WILL SEND TO OCCUPANT-

PEABODY COAL COMPANY

WATER WELL SURVEY

NAME: SADIE KELLY ADDRESS: P.O. BOX 1657; KAYENTA, AZ. 86033

Water Supply- PEABODY

Well ( ) Cistern ( ) Pond ( ) Other ( TANK )

Age ( ) Drilled ( ) Dug ( ) Augered ( )

Total depth ( )ft // Depth to water (static level) ( )ft

Casing (size and type) N/A

Gravel pack ( ) Thickness and composition N/A

Driller N/A Date drilled

Capacity test made ( ) // When:

Done by:

Results:

Pump/Plumbing

Pump type ( ) Pump depth ( )ft

Replacement or service:

Brief description of water system (pipe material, tanks, etc)

HAULS WATER TO HOLDING TANK AS NEEDED

Quantity-

Capacity (if known): 1000 GALS Approximate discharge: gpm

Ever haul water or lose supply: HAULED TO TANK

Seasonal fluctuations: NO

Comsumption: Persons (3) Flush toilet ( / ) Shower/bathtub ( / )

Automatic washer ( ) Dishwasher ( ) Livestock ( )

Garden/lawn watering ( ) Other uses( )

Recent changes in use ( ) Date ( )Increase/Decrease

Details:

Water Quality-

Taste/Odor ( ) Sand ( ) Color ( )

Other ( )

Factors affecting quality:

Water sample yes ( ) no ( )

Historical Data and Previous Performance (give details):-

N/A

NO WATERLINE AS YET LAID FROM TANK TO RESIDENCE.

FORM 1107 - 6/82

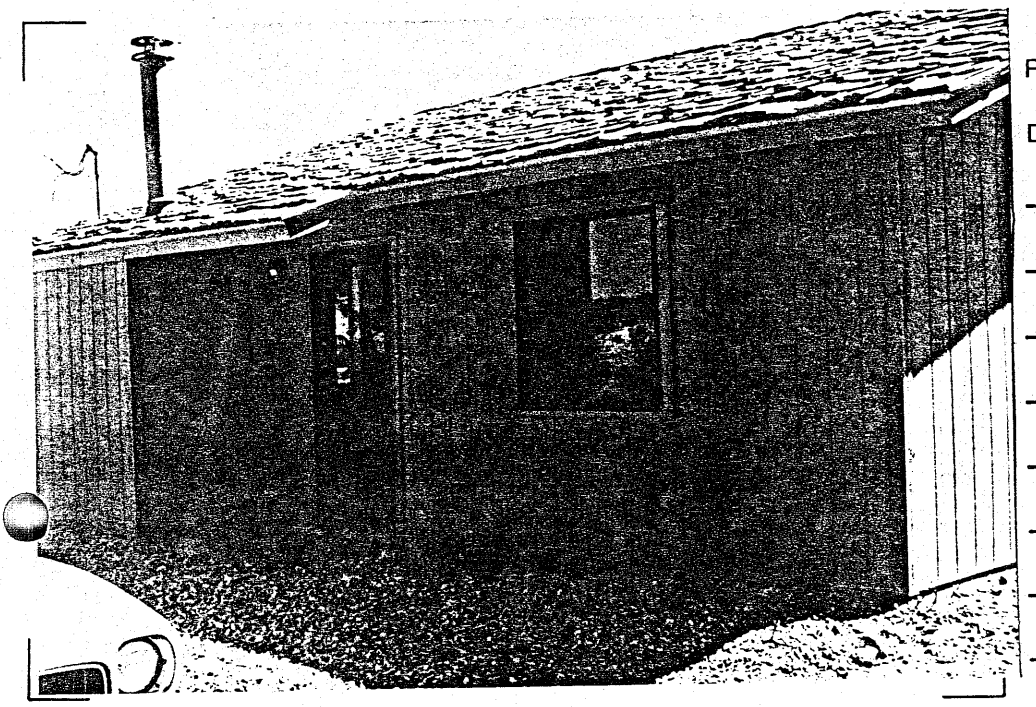
# PHOTO MOUNTING SHEET

Insured/Owner SADIE KELLY

Company Claim No. —  Policy No.

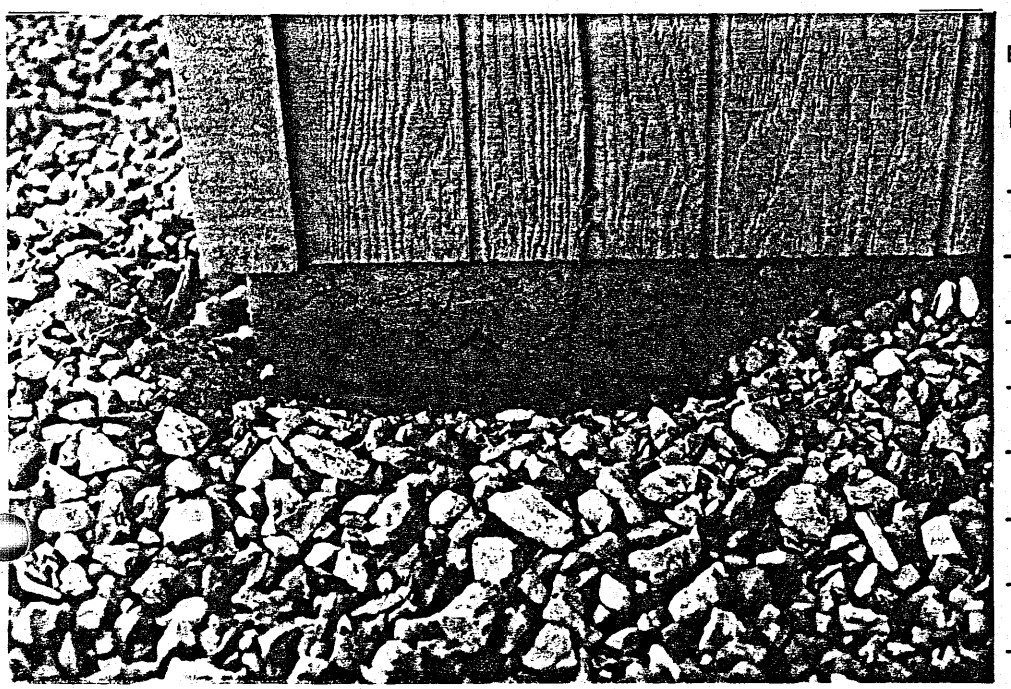
Our File No. 152-86568  Date Taken 9-4-85

Film — Polaroid ☐  Negative ☒  Adjuster BSF



PICTURE NUMBER 1

DESCRIPTION S.W. CORNER



PICTURE NUMBER 2

DESCRIPTION BROKEN SLAB AT N/W CORNER -

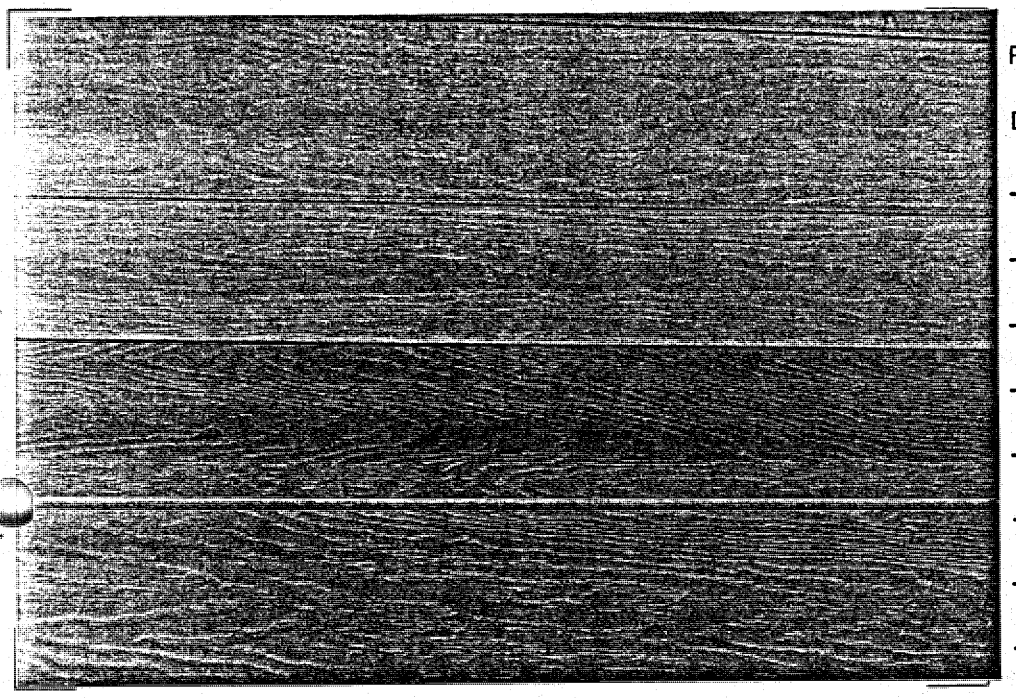
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

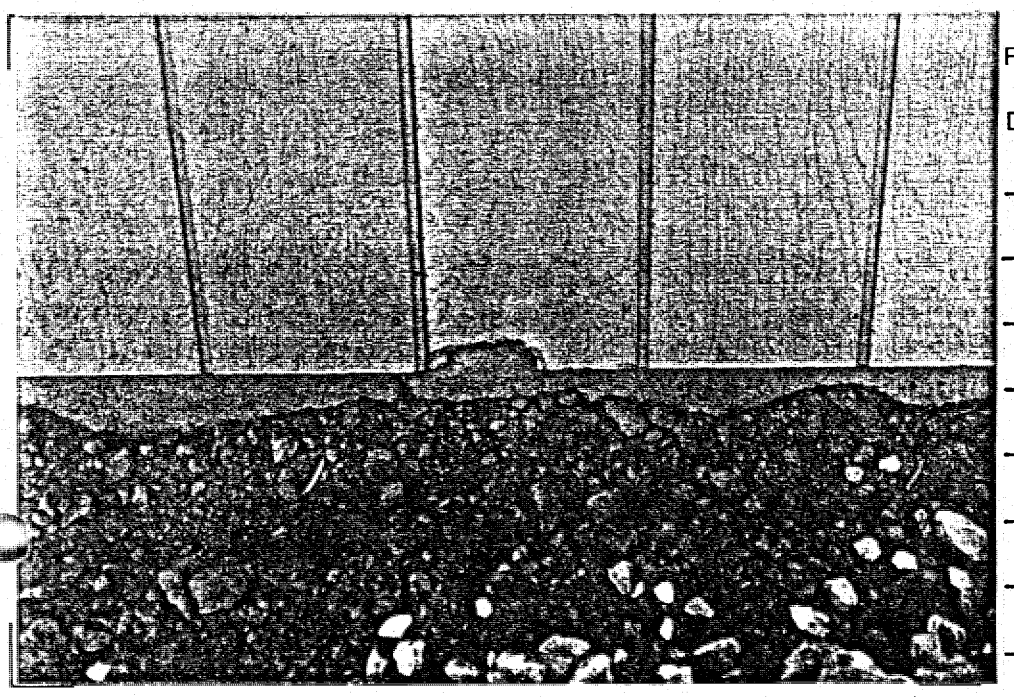
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 3

DESCRIPTION SEPARATION AT PANEL JOINT AT F/DOOR AND FIRE PLACE



PICTURE NUMBER 4

DESCRIPTION BROKEN PANELING UNDER F-WINDOW

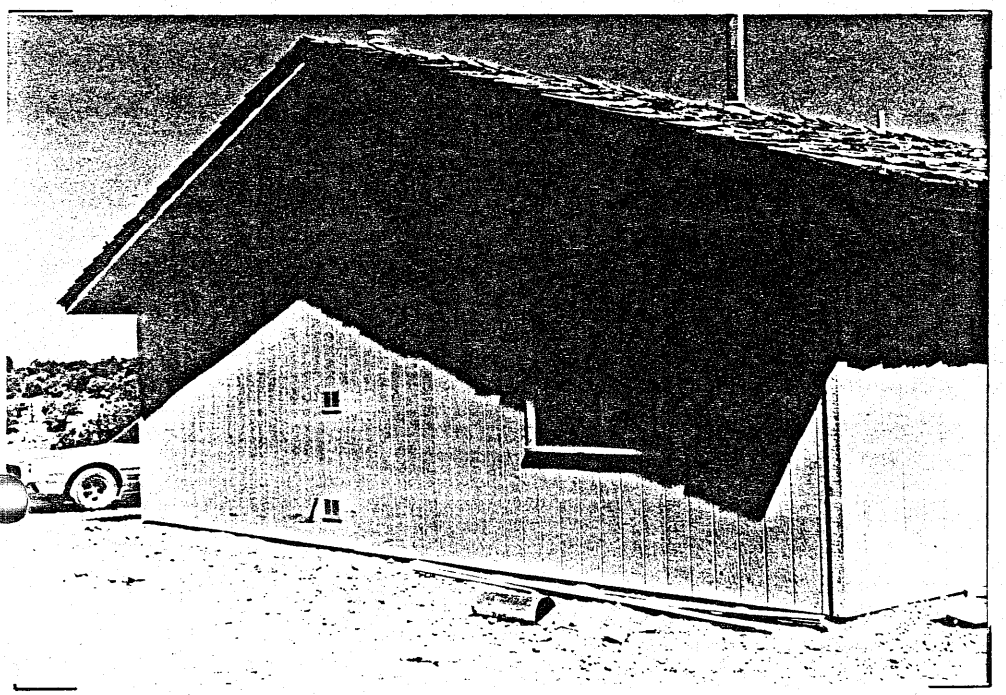
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

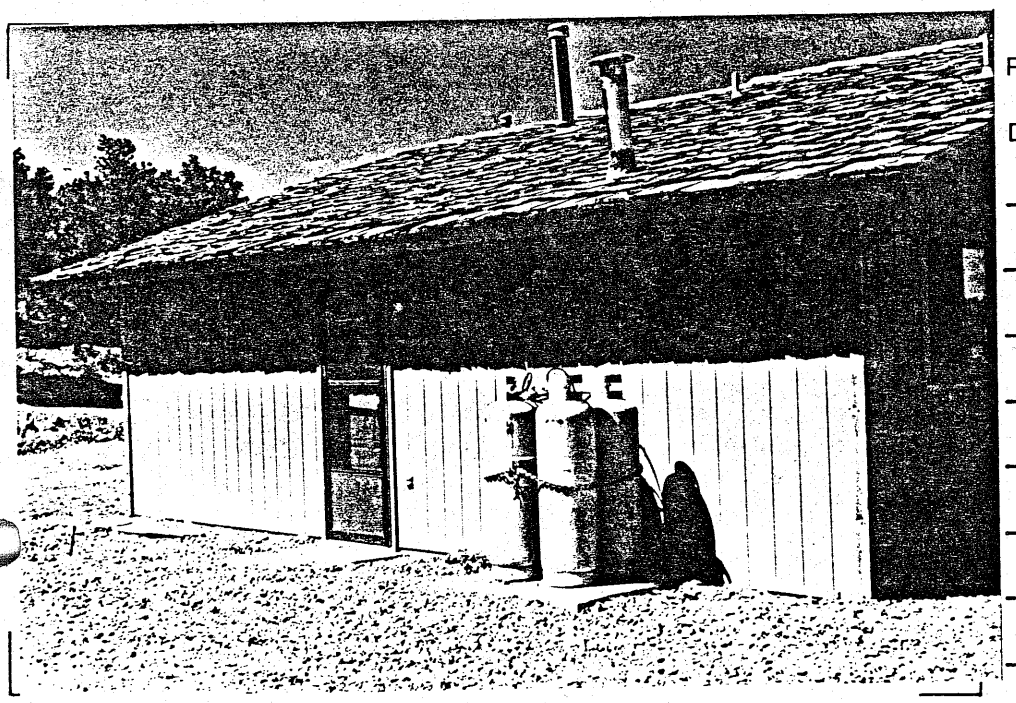
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 5

DESCRIPTION S. E. CORNER



PICTURE NUMBER 6

DESCRIPTION N. E. CORNER

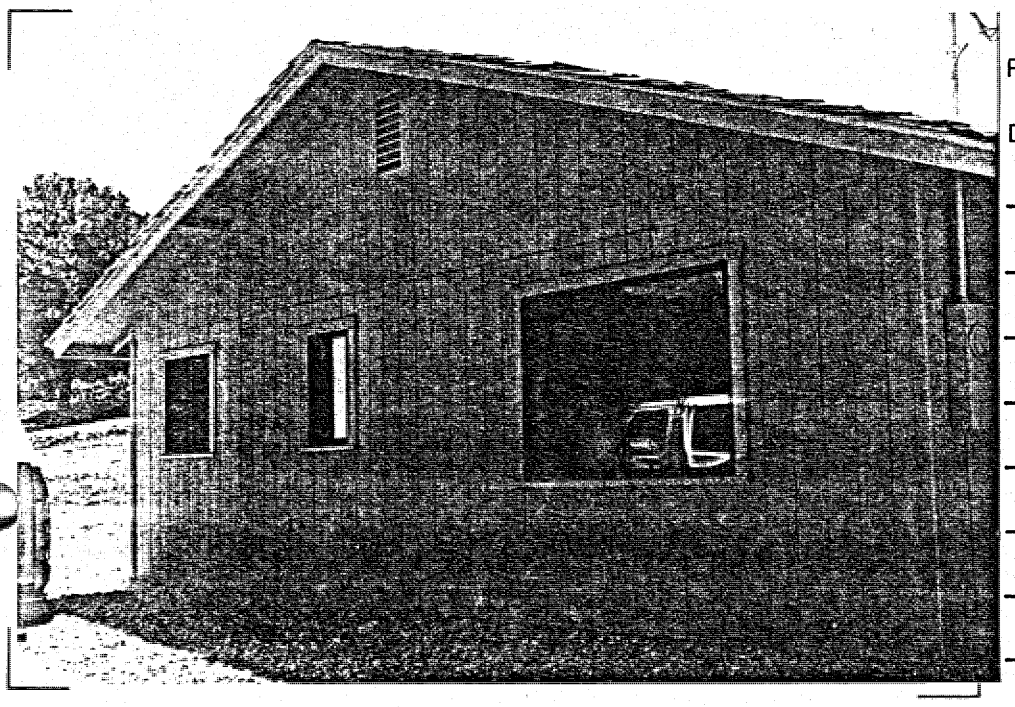
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 7

DESCRIPTION N.W. CORNER

PICTURE NUMBER 8

DESCRIPTION TANK IS EAST BY SOUTH OF HOME ON BUILT UP FRAME ON GRADE - NOTE WATERLINE TRENCH

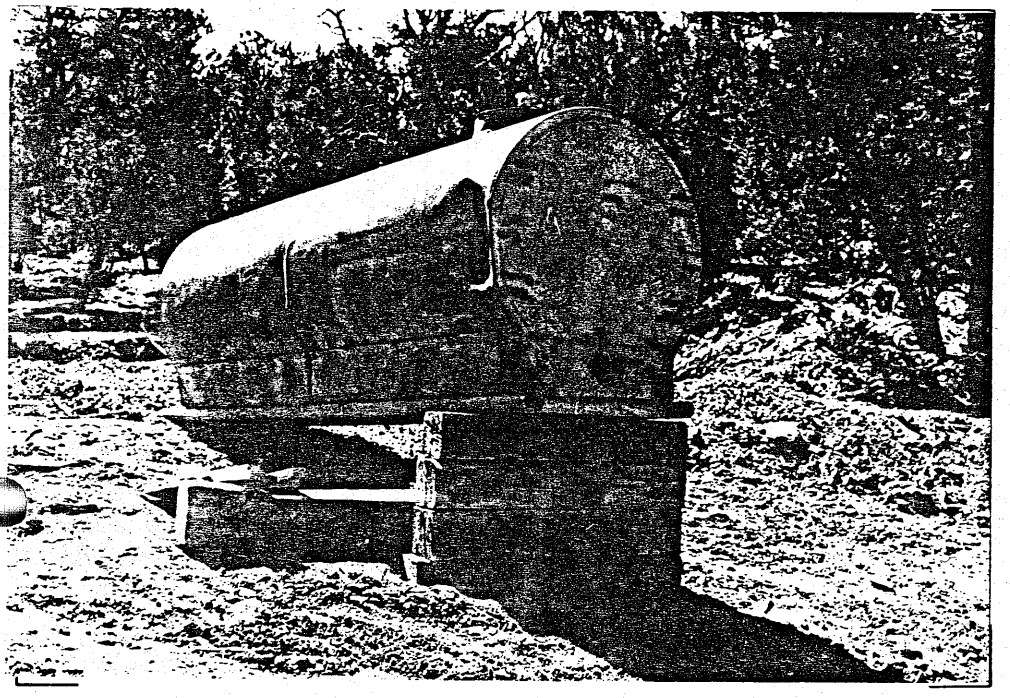
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

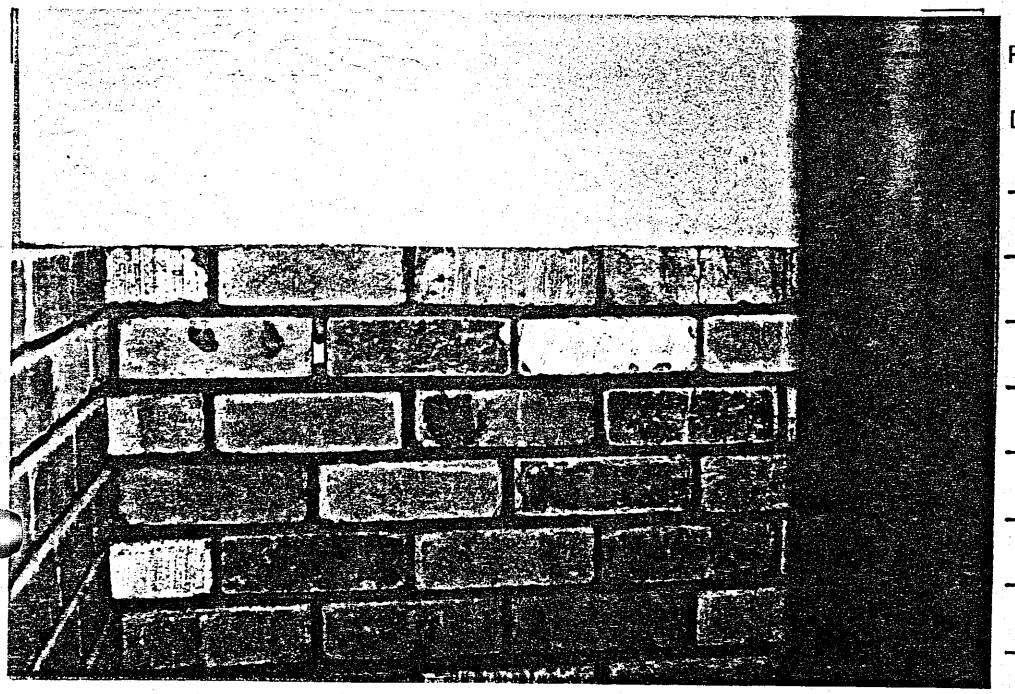
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 9

DESCRIPTION CLOSEUP OF #8. *NOTE OLD DAMAGE TO TANK.



PICTURE NUMBER 10

DESCRIPTION MORTER MISSING IN SOME BRICK JOINTS IN LIVING ROOM WALL BEHIND WOOD STOVE.

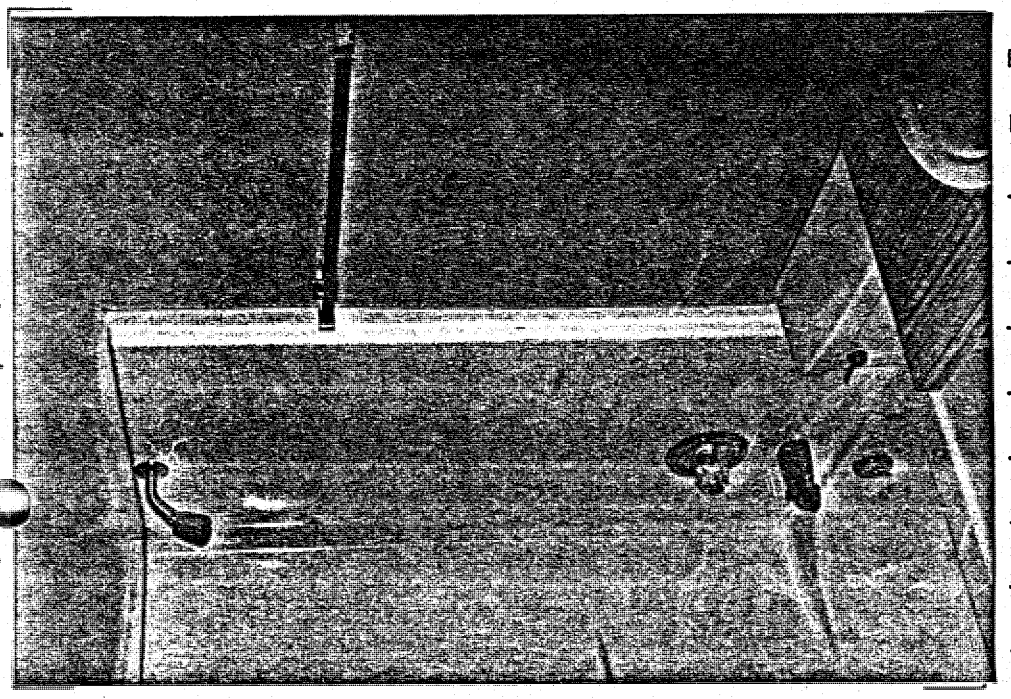
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

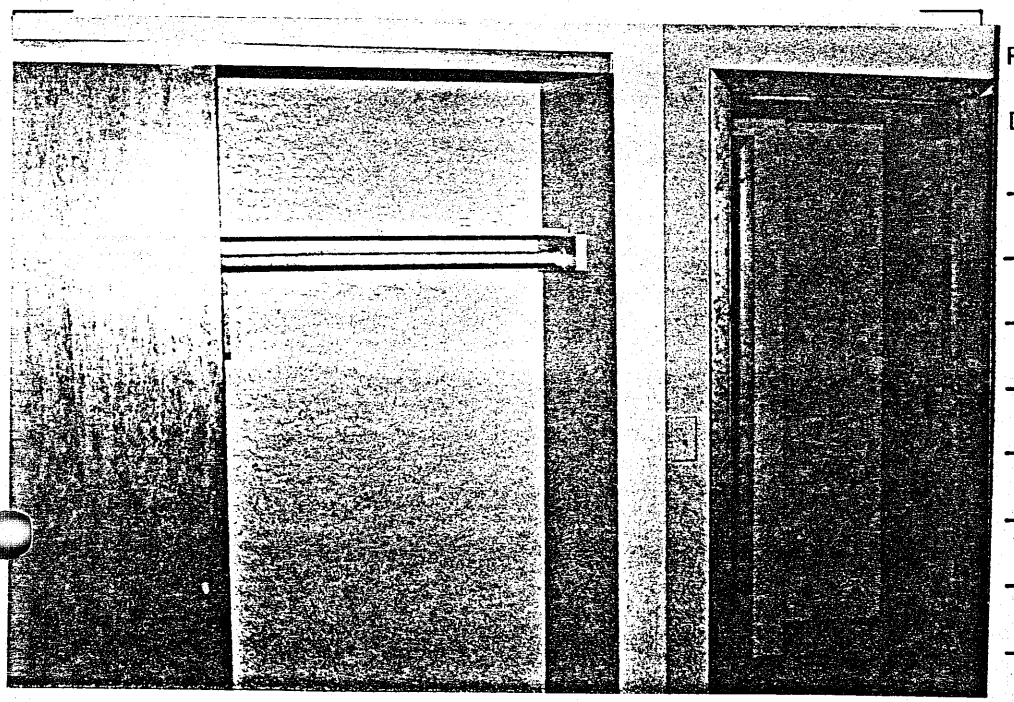
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 11

DESCRIPTION BATHROOM



PICTURE NUMBER 12

DESCRIPTION BEDROOM #1

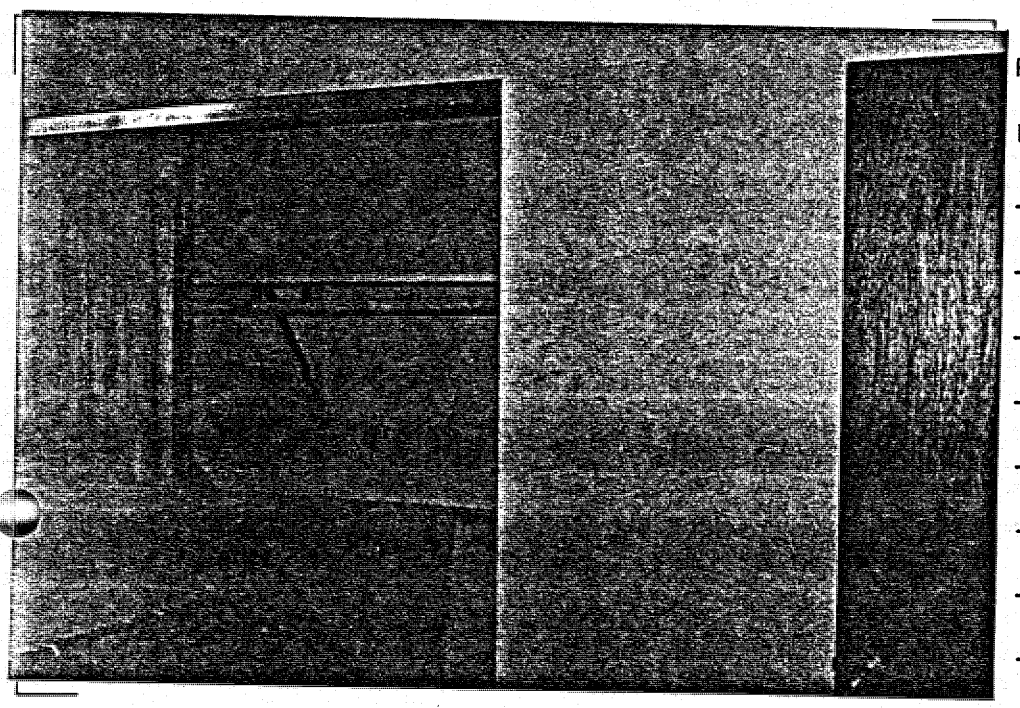
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 13

DESCRIPTION BED ROOM #2

PICTURE NUMBER _____

DESCRIPTION _____

PEABODY

NOTICE OF MINING

TO: Thomas Lake
P.O. Box 591
Blanding, Utah 84511

You are hereby given notice that Peabody intends to begin mining in the area indicated on the attached map on the following date:

Have already begun mining

If you own property or improvements within or half a mile of this area, your property or improvements will be affected by the mining operation and you have the right to request for a pre-blasting inspection of your property or improvements before mining begins, and if any of these properties or improvements are in the way of the mining, it must be moved and relocated out to any area not affected by mining.

I, Tom Lake, received and understand fully the content of the above notice, and I hereby [X] give my consent; [ ] will not consent to have a pre-blasting inspection done on my property or improvements.

Tom Lake
Signature

8-15-85
Date

WITNESS:

# PEABODY COAL COMPANY

301 NORTH MEMORIAL DRIVE — P.O. BOX 235 - ST. LOUIS, MISSOURI 63166

## CONDITION REPORT

Location: N/GIVEN Date: 9-18-85

File Number: 152-86730-BSE Time: 3:00 PM

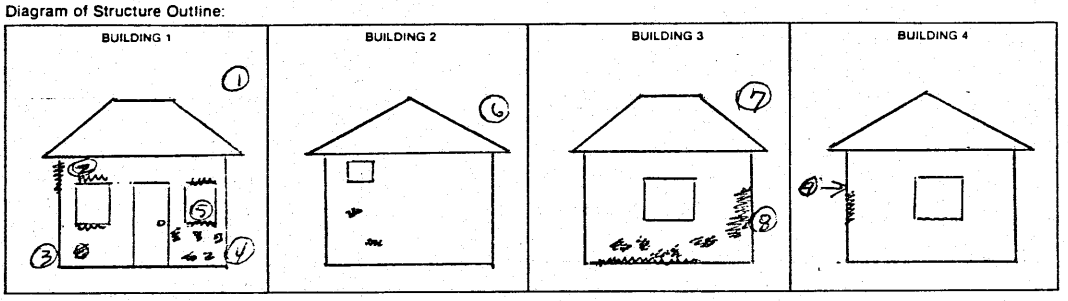
Property Address: N/G
Number Street City County State

Occupant(s): TOM LAKE

Owner: TOM LAKE Mailing Address: P.O. BOX 994; KAYENTA AZ. 86033

Residential ☒ Mercantile ☐ Farm ☐ Other ☐

Diagram of Structure Outline:




## CONDITION AND DEFECTS
### Section II

Building No. _____ Frame ☒ Brick ☐ Brick Veneer ☐ Stucco ☒
Metal ☐ Other ☐ _____ (DESCRIBE)

Type: Dwelling ☐ Garage ☐ Shed ☐ Other ☐ _____ (DESCRIBE)

Number Stories: _____ Overall Condition: Good ☐ Average ☐ Poor ☐

| EXTERIOR | (Material) | (Condition) |
|---|---|---|
| Roof | COMP-ROLLED | POOR |
| Siding | STUCKO | POOR |
| Door/Windows | WOOD FRAME | POOR |
| Chimneys | STOVE PIPE | AVERAGE |
| Floors | SLAB | AVERAGE |
| Porch (es) | NONE | — |

Roof Drainage Adequate Yes ☒ No ☐ Porch(es) Yes ☐ No ☒

Condition Downspout - Leaking Yes ☐ No ☐ None ☒

Condition Drain Tile - Leaking Yes ☐ No ☐ None ☒

Downspouts Drain To: Earth ☒ Sewers ☐ Catch Basin ☐ Splash ☐

How Far Drainage Carried From Foundation 2 Feet

Location Downspouts N/A

Natural Lot Drainage Flows N. ☐ S. ☐ W. ☐ E. ☒

Is Erosion Visible Within Two Feet of Foundation? Yes ☐ No ☒

Is Settlement Visible Around Foundation? Yes ☒ No ☐

Has Drainage Contributed to Building Settlement? Yes ☐ No ☒

What Area of Building? _____

Water Supply: Type HAULED Condition GOOD

COMMENTS: EXTERIOR OF STRUCTURE IS IN GENERALY POOR CONDITION, HAVING LOST MANY PATCHES OF STUCCO. THE WINDOW AND DOOR FRAMES ARE IN POOR CONDITION. FRAME IS EXPOSED IN EAST WINDOWS.

Form 1151

STRUCTURE HAS ONLY ONE ROOM

## INTERIOR CONDITION
Section IV

| Room | N | E | S | W | Ceiling |
|---|---|---|---|---|---|
| | (13) | (10) | (11) | (14) (12) | (11) |

- Rectangles indicate Windows and Doors
- Wavy Lines indicate Cracking of Wall Covering Material

| Room | Material | | | | Floor |
|---|---|---|---|---|---|
| | | | | | (15) (16) |

| Room | Material | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

NOTE: Repeat Sections II, III, and IV for Each Additional Building at this Location.

COMMENTS: SINGLE ROOM STRUCTURE - INTERIOR HAS BEEN UPGRADED WITH PARTICLE BOARD ON WALLS AND SHEET ROCK ON CEILING. SHEET ROCK ON CEILING IS PULLING FREE AND HANGING IN SOME PLACES. FLOOR HAS CRACKING ON BOTH HALVES, WITH SEAM IN CENTER EAST TO WEST

Inspector [signature] Copy given to Owner Yes ☐ No ☒

CO. WILL SEND TO OCCUPANT

PEABODY COAL COMPANY

WATER WELL SURVEY

NAME: TOM LAKE ADDRESS: P.O. BOX 994, KAYENTA, AZ. 86033

Water Supply- PEABODY

Well ( ) Cistern ( ) Pond ( ) Other (HAULED AS NEEDED)

Age ( ) Drilled ( ) Dug ( ) Augered ( )

Total depth ( )ft // Depth to water (static level) ( )ft

Casing (size and type) NA

Gravel pack ( ) Thickness and composition N/A

Driller N/A Date drilled

Capacity test made ( ) // When:

Done by:

Results:

Pump/Plumbing

Pump type ( ) Pump depth ( )ft

Replacement or service:

Brief description of water system (pipe material, tanks, etc)

Quantity-

Capacity (if known): N/A Approximate discharge: N/A gpm

Ever haul water or lose supply: YES FROM PEABODY

Seasonal fluctuations: NO

Comsumption: Persons (5) Flush toilet (NO) Shower/bathtub (NO)

Automatic washer ( ) Dishwasher ( ) Livestock ( )

Garden/lawn watering ( ) Other uses( )

Recent changes in use ( ) Date ( )Increase/Decrease

Details:

Water Quality-

Taste/Odor ( ) Sand ( ) Color ( )

Other ( )

Factors affecting quality:

Water sample yes ( ) no ( )

Historical Data and Previous Performance (give details):-

OCCUPANT HAS NO HOLDING TANKS. HE HAULS WATER AS HE NEEDS IT.

FORM 1107 - 6/82

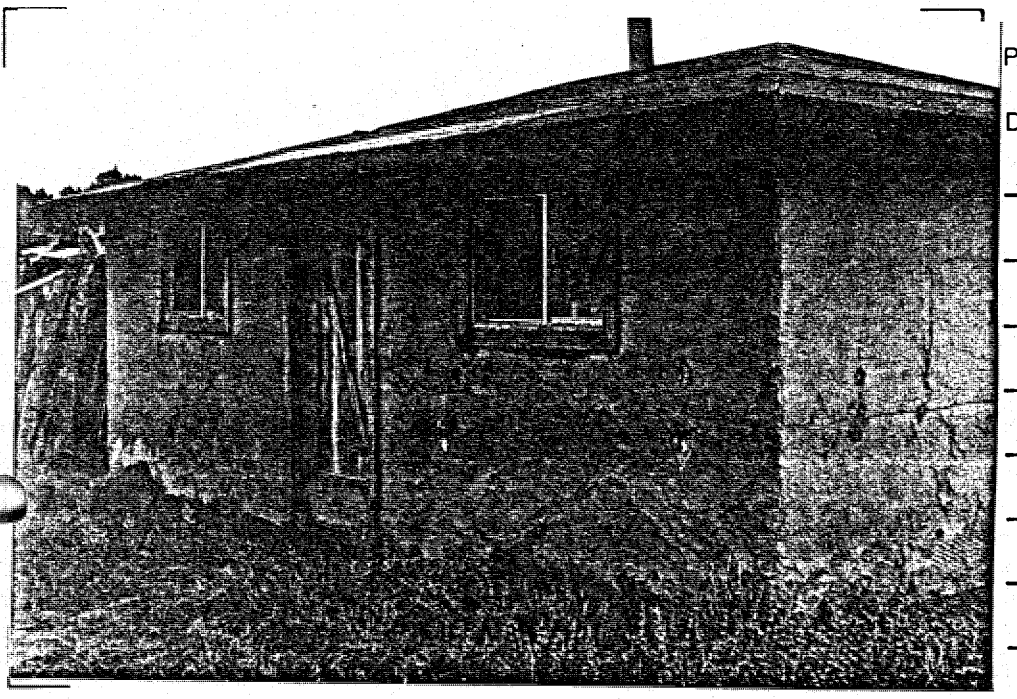
# PHOTO MOUNTING SHEET

Insured/Owner TOM LAKE

Company Claim No. _____ Policy No. _____

Our File No. 152-86730-BSF Date Taken 9-18-85

Film — Polaroid ☐ Negative ☑ Adjuster BSF



PICTURE NUMBER 1

DESCRIPTION N.E. CORNER

PICTURE NUMBER 2

DESCRIPTION SOUTH WINDOW ON E/SIDE

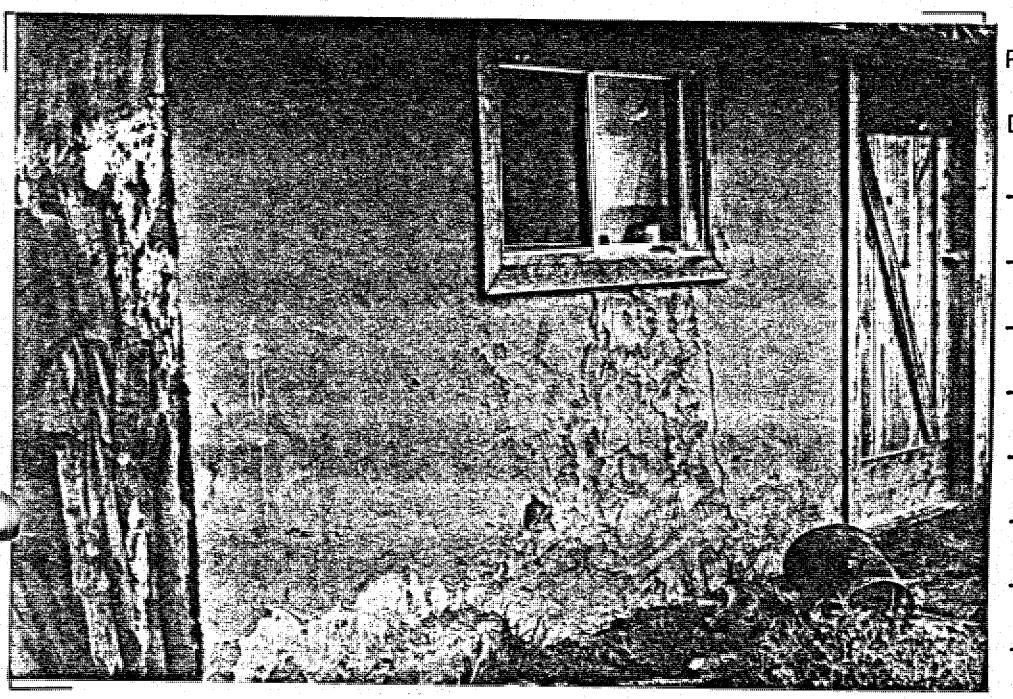
# PHOTO MOUNTING SHEET

Insured/Owner

Company Claim No. Policy No.

Our File No. Date Taken

Film — Polaroid ☐ Negative ☐ Adjuster



PICTURE NUMBER 3

DESCRIPTION BELOW SOUTH WINDOW ON E/SIDE

PICTURE NUMBER 4

DESCRIPTION N/END OF E-SIDE

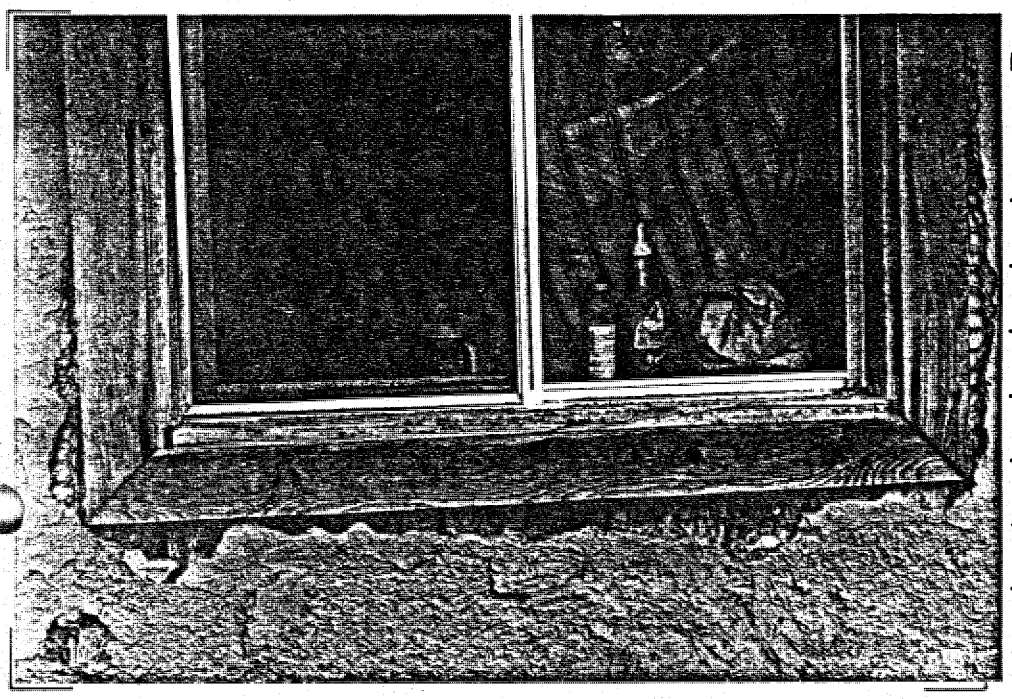
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

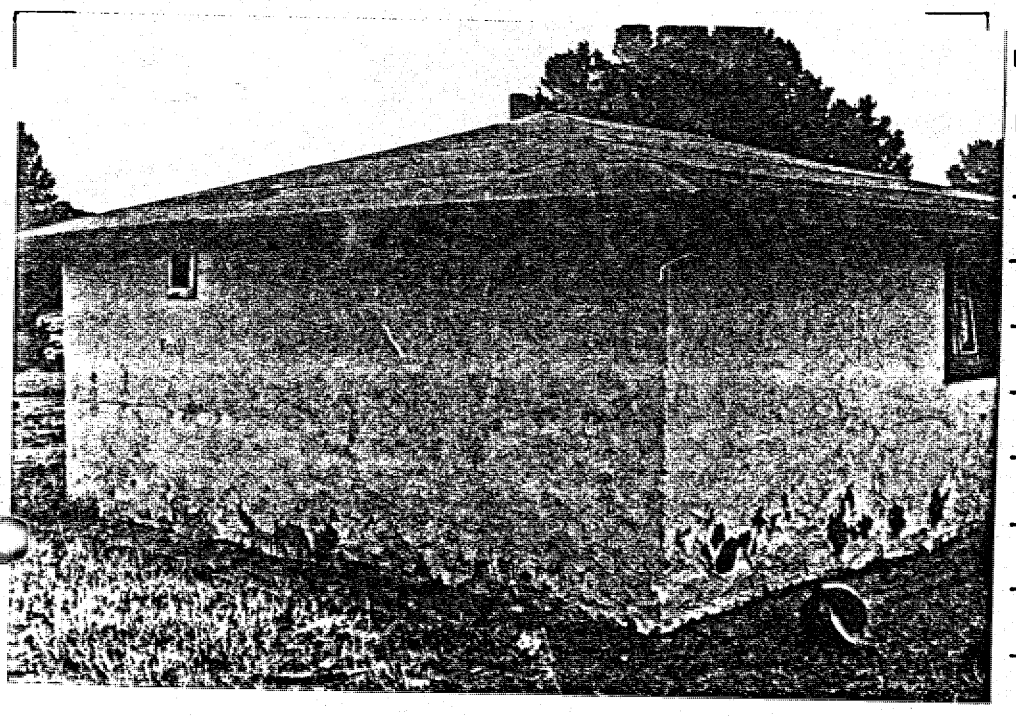
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 5

DESCRIPTION N/WINDOW ON E/SIDE



PICTURE NUMBER 6

DESCRIPTION N/W CORNER

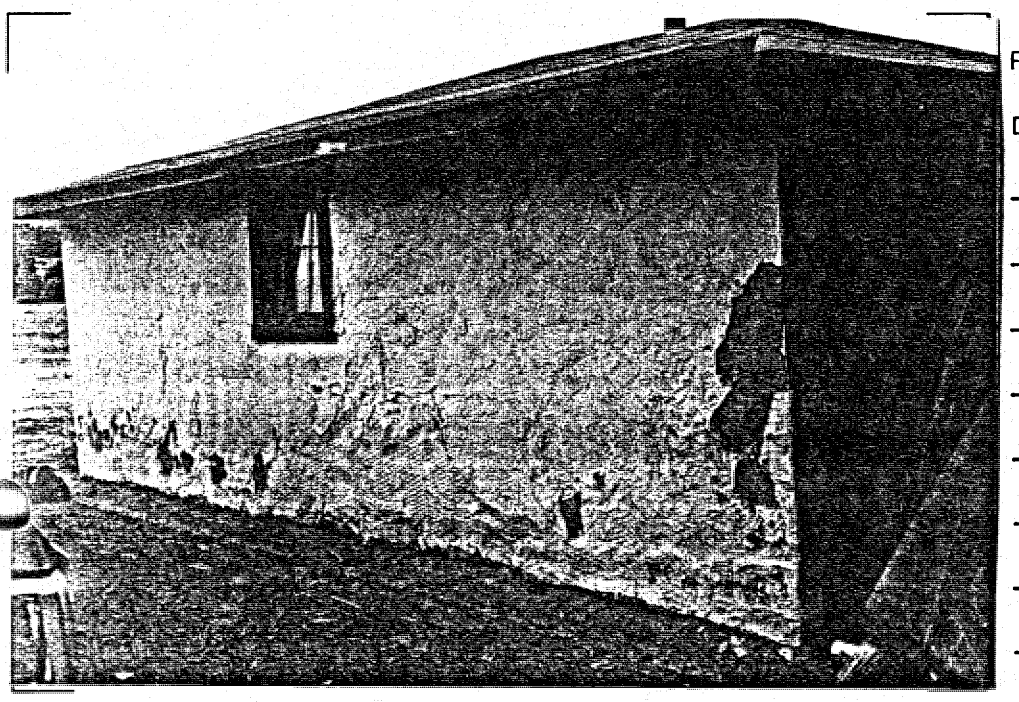
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

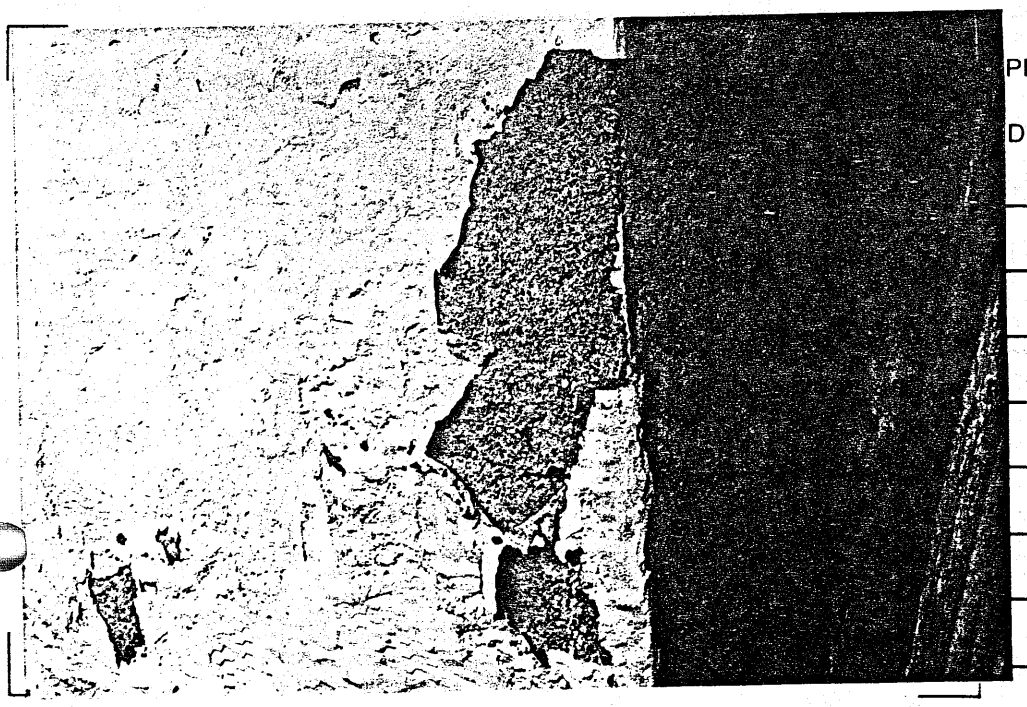
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 7

DESCRIPTION S/W CORNER



PICTURE NUMBER 8

DESCRIPTION SOUTH END OF W/SIDE

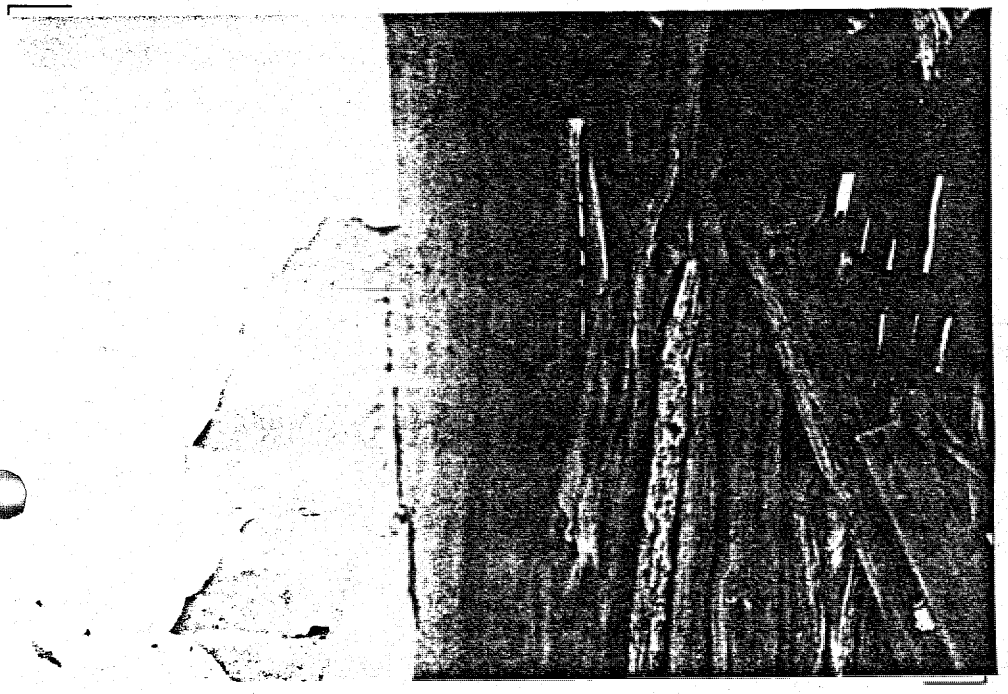
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

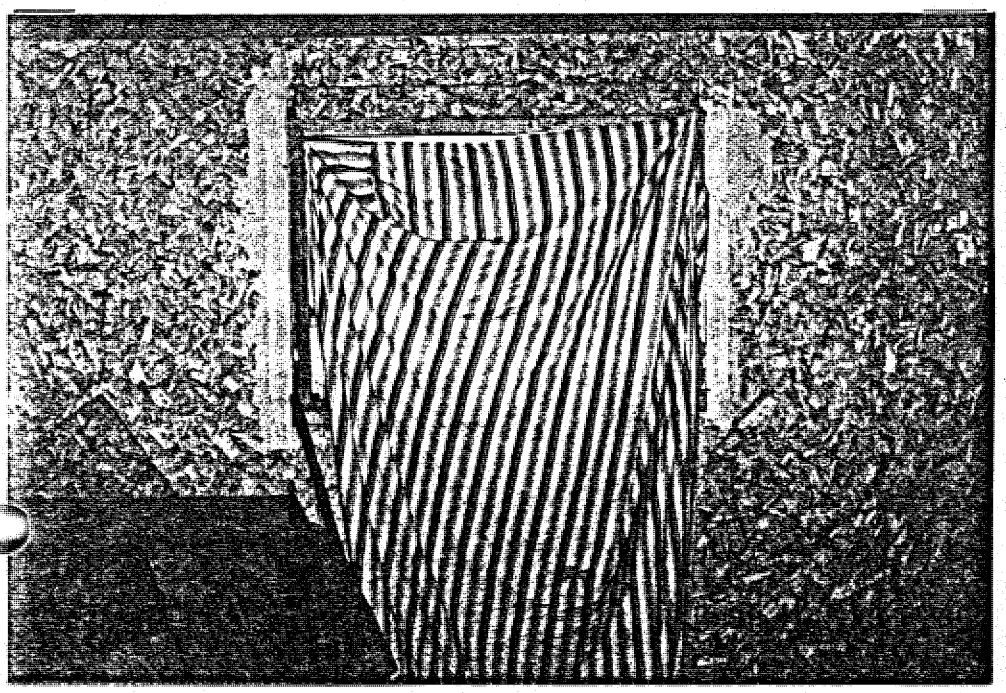
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 9

DESCRIPTION S/END OF BUILDING NOT ACCESSABLE DUE TO WOOD STORAGE



PICTURE NUMBER 10

DESCRIPTION INTERIOR E. WALL - SW-WINDOW

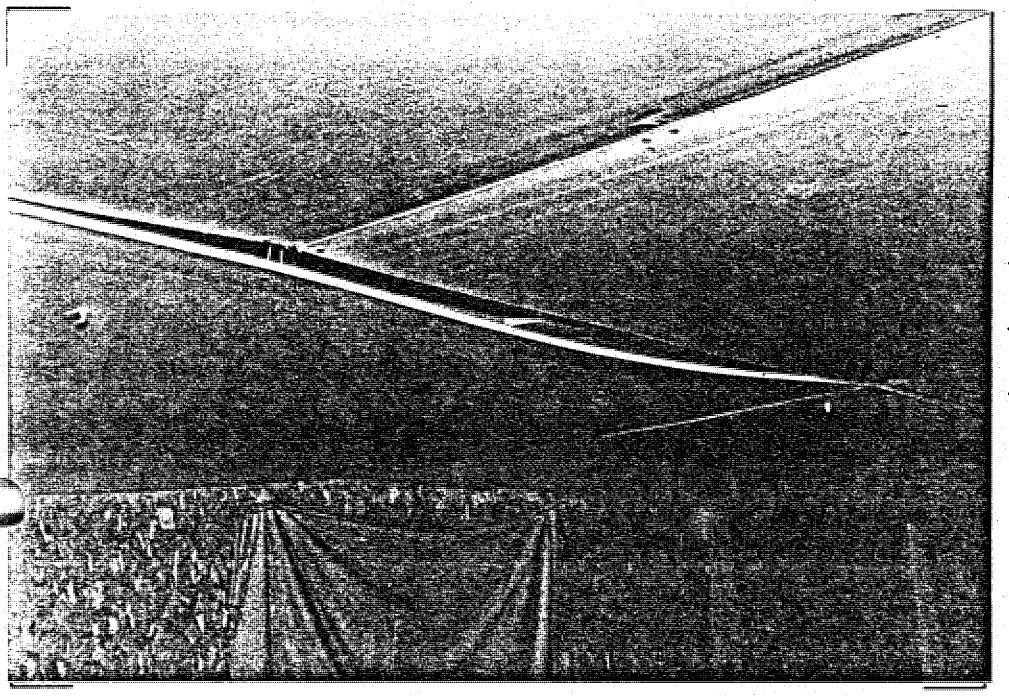
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

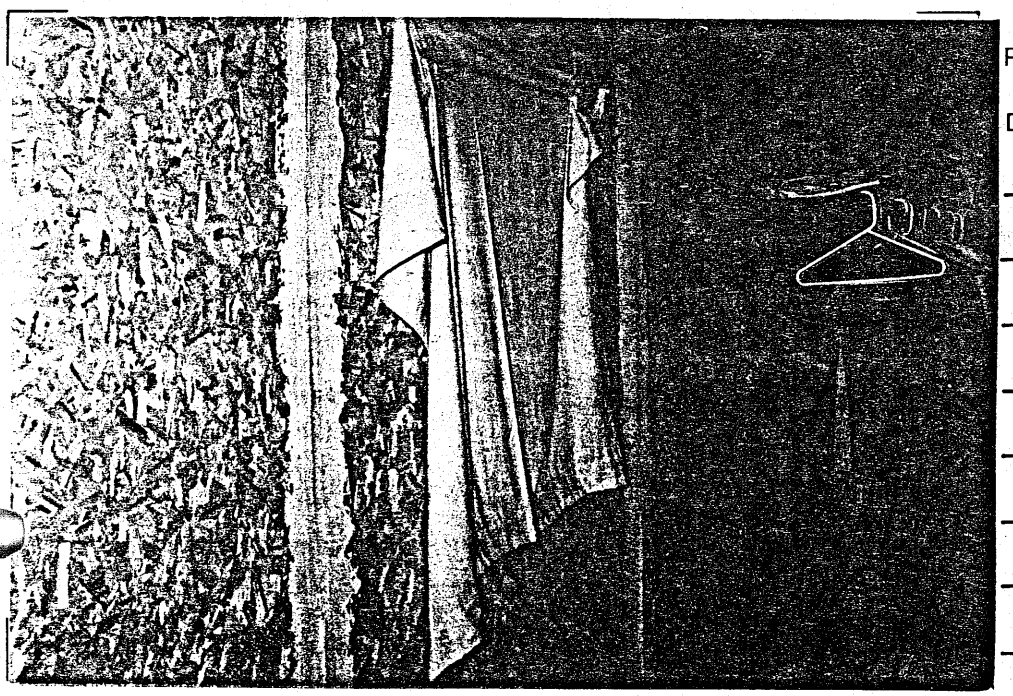
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 11

DESCRIPTION S - WALL -



PICTURE NUMBER 12

DESCRIPTION W/WALL

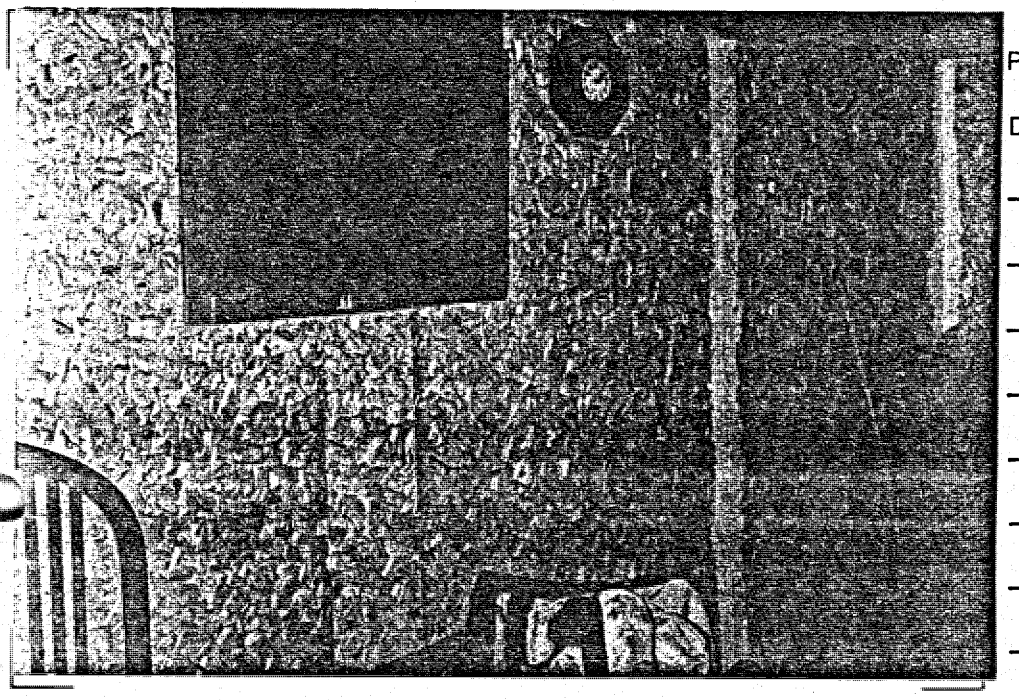
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

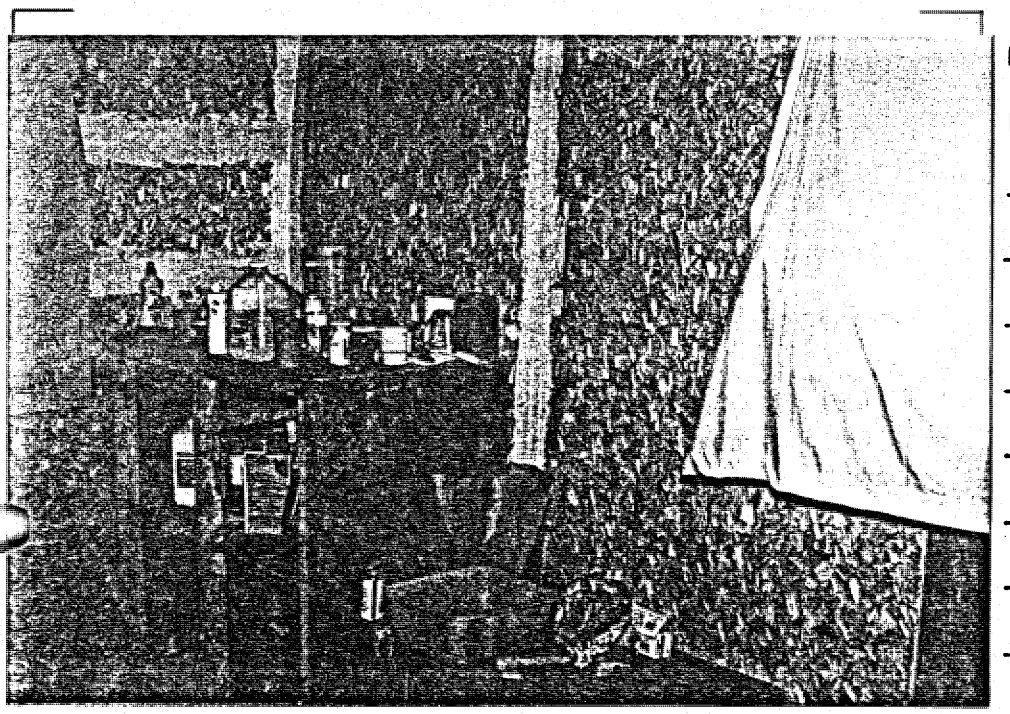
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 13

DESCRIPTION N-WALL



PICTURE NUMBER 14

DESCRIPTION S/WEST CORNER

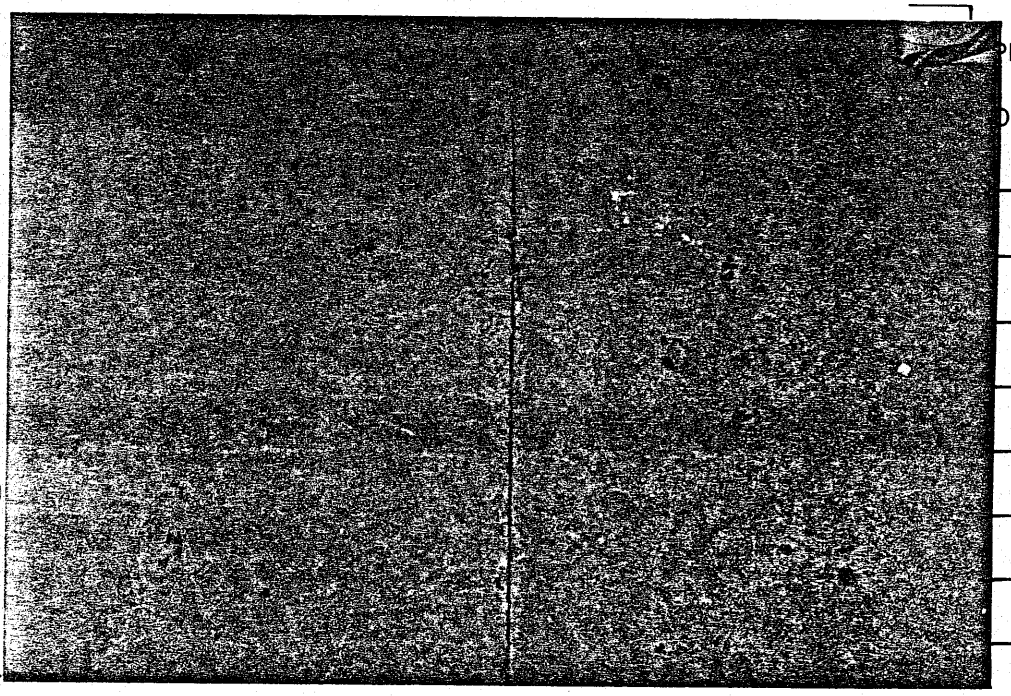
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

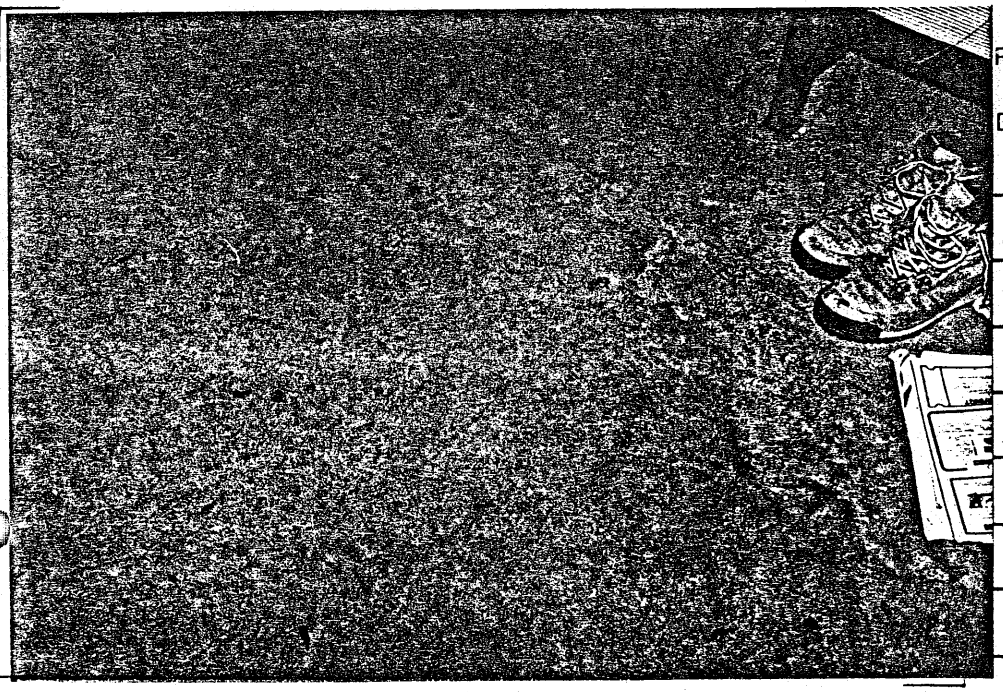
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 15

DESCRIPTION FLOOR CRACKS



PICTURE NUMBER 16

DESCRIPTION ADDITIONAL FLOOR CRACKS

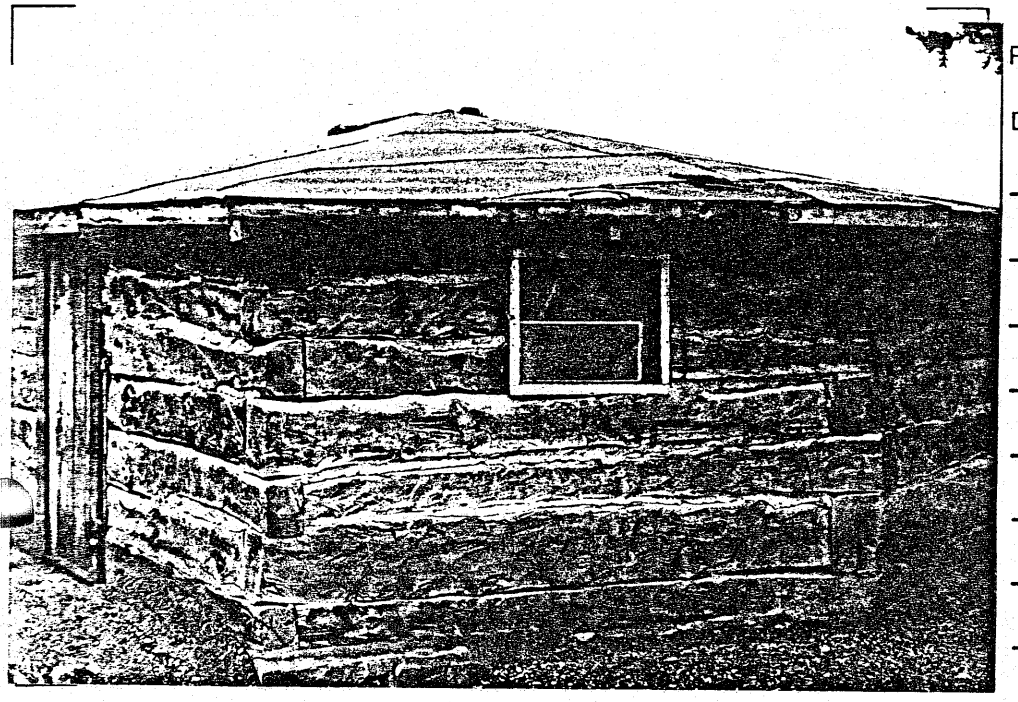
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

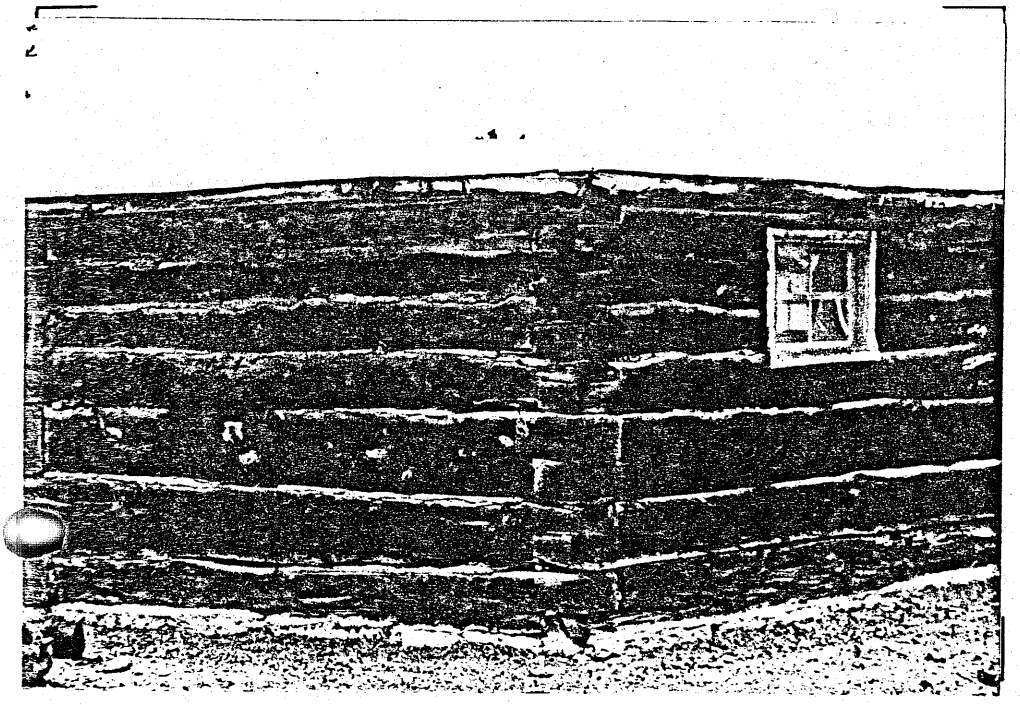
Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 17

DESCRIPTION HOGAN N - SIDE



PICTURE NUMBER 18

DESCRIPTION S - WEST SIDE

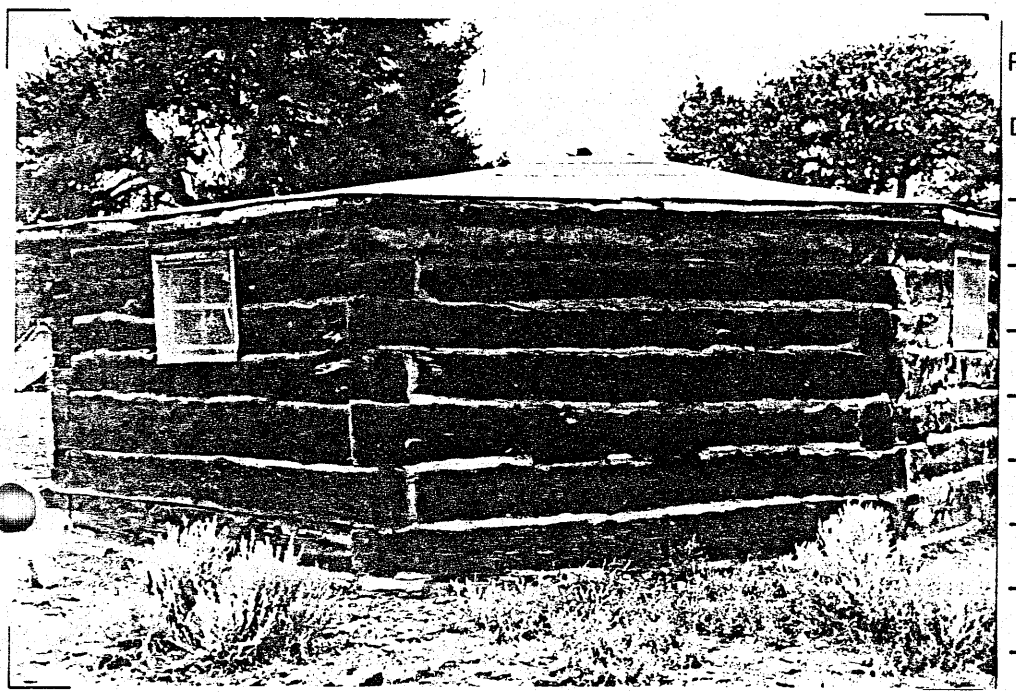
# PHOTO MOUNTING SHEET

Insured/Owner _____

Company Claim No. _____ Policy No. _____

Our File No. _____ Date Taken _____

Film — Polaroid ☐ Negative ☐ Adjuster _____



PICTURE NUMBER 19

DESCRIPTION S-E-SIDE

PICTURE NUMBER _____

DESCRIPTION _____

ATTACHMENT 5

BLAST MONITORING PLAN

# BLAST MONITORING PLAN

PWCC will adhere to OSM regulation 30 CFR 816.67 for seismic monitoring requirements. PWCC utilizes the scaled-distance formula at 30 CFR 816.67(d) (3) for determining the maximum pounds of explosives detonated per delay. PWCC will monitor airblast and ground vibration for all shots exceeding the scaled distance equation, as well as any required by the regulatory authority at their requested location(s).

Ground motion measurements will include the highest peak particle velocity and critical frequency for each direction of motion. The seismograph used to record those measurements will be set at a trigger level of not greater than 0.50 inches per second particle velocity. Airblast measurements will be recorded with the results given in decibels (dBL). The airblast trigger level will be no greater than132.6 dBL air overpressure. The record of the seismic monitoring will be printed and attached to the corresponding blast report which will be filed at the mine office for a period of three years and available for inspection.

For the periodic airblast monitoring requirement, twice a year in June and December, PWCC will monitor one blast for airblast in either the J19 or J21 pits at the nearest residence or closer. Occupied residences surrounding all pit areas are shown on the Blasting Monitoring Map, Drawing #94700. Typically, the J19 pit is selected for the periodic airblast monitoring because the other active pits are more likely to be monitored throughout the year due to the proximity of residences and increased likelihood of exceeding the scaled distance equation.

All seismic monitoring will be done at the nearest residence or at locations closer in distance than any residence to the actual blast.

Blasting will be restricted to the daytime hours between sunrise and sunset, with the following exception(s). PWCC may blast at times other than during daytime hours (unscheduled blasts) where required for public or operator health and safety and for emergency blasting actions. When an unscheduled blast occurs, PWCC will document the reasons for the unscheduled blast, as well as the conditions of health and safety or emergency that required the blast. This documentation shall be provided in the blasting statement, Figure 1.

ATTACHMENT 6

PRE-BLAST SURVEY SITES RESIDENT LIST

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| LastName | FirstName | Status | Resident ID | Old Resident ID | PWCC Easting | PWCC Northing | Chapter | Rank Status |
|---|---|---|---|---|---|---|---|---|
| Albert | Earlene | Occupied | 2.0 | 71.0 | 17322 | -11246 | Kayenta | Primary |
| Albert | Oliver | Occupied | 1.0 | 78.0 | 18163 | -10886 | Kayenta | Primary |
| Albert | Alta Rose | Occupied | 1.1 | 203.0 | 14561 | -14862 | Kayenta | Primary |
| Albert | Oliver | Occupied | 118.0 | 0.0 | 17909 | -10989 | Kayenta | Secondary |
| Albert | Earlene | Occupied | 2.1 | 0.0 | 18100 | -10588 | Kayenta | Primary |
| Anderson | Woody | Occupied | 11.1 | 156.0 | 44832 | -21484 | Kayenta | Primary |
| Anderson | Roland Kobe | Occupied | 3.0 | 323.0 | 44900 | -21378 | Kayenta | Primary |
| Austin | Billy | Vacated | 117.0 | 0.0 | 31857 | 10818 | Kayenta | Secondary |
| Austin | Billy | Occupied | 117.1 | 0.0 | 32401 | 13369 | Kayenta | Primary |
| Austin | Jerome | Occupied | 117.2 | 0.0 | 31631 | 8857 | Kayenta | Primary |
| Austin sr. | Billy | Occupied | 4.0 | 303.0 | 31600 | 8800 | Kayenta | Secondary |
| Bahe | Fabian | Occupied | 5.0 | 150.0 | 36749 | -15670 | Kayenta | Primary |
| Barton | Linda | Occupied | 302 | 0.0 | 35536 | -32579 | Forest Lake | Primary |
| Becenti | Irene and Keevin | Vacated | 6.2 | 83.0 | 20356 | -16059 | Kayenta | Secondary |
| Becenti | Irene and Keevin | Occupied | 6.0 | 181.1 | 21870 | -14806 | Kayenta | Primary |
| Becenti | Irene and Keevin | Occupied | 6.1 | 181.2 | 21901 | -14879 | Kayenta | Primary |
| Begay | Danny | Occupied | 10.0 | 3.0 | Easting | -53065 | Forest Lake | Secondary |
| Begay | Bilta | Vacated | 9.3 | 8.0 | 55399 | -52434 | Forest Lake | Secondary |
| Begay | Bilta | Occupied | 9.0 | 9.0 | 55431 | -52299 | Forest Lake | Secondary |
| Begay | George and Lena | Occupied | 12.0 | 73.0 | 37837 | -11453 | Kayenta | Secondary |
| Begay | Anita | Occupied | 83.0 | 153.0 | 18448 | -11590 | Kayenta | Primary |
| Begay | Bessie | Occupied | 8.3 | 155.0 | 36343 | -23479 | Kayenta | Primary |
| Begay | Harvey | Occupied | 7.1 | 188.0 | 77960 | -34868 | Forest Lake | Primary |
| Begay | Raymond | Vacated | 16.0 | 185.0 | 78043 | -38612 | Forest Lake | Secondary |
| Begay | Bah | Vacated | 7.2 | 187.0 | 77936 | -38947 | Forest Lake | Secondary |
| Begay | Bah | Occupied | 7.1 | 188.0 | 77794 | -40198 | Forest Lake | Primary |
| Begay | Teddy | Vacated | 17.0 | 205.0 | 21657 | -52071 | Forest Lake | Primary |
| Begay | Bah | Occupied | 7.0 | 318.0 | 77300 | -40380 | Forest Lake | Secondary |
| Begay | Bessie | Occupied | 8.1 | 0.0 | 36215 | -23368 | Kayenta | Secondary |
| Begay | Kee Z. | Occupied | 116.0 | 0.0 | 20031 | -55229 | Forest Lake | Primary |
| Begay | Lenora | Occupied | 127.0 | 0.0 | 69786 | -44063 | Forest Lake | Secondary |
| Begay | Harvey | Occupied | 7.0 | 318.0 | 78023 | -34779 | Forest Lake | Secondary |
| Begay | Raythaniel | Occupied | 131.0 | 0.0 | 79093 | -38606 | Forest Lake | Primary |
| Begay | John d. | Occupied | 130.0 | 0.0 | 77455 | -39421 | Forest Lake | Primary |
| Begay | Bessie | Occupied | 8.4 | 0.0 | 32122 | -24673 | Kayenta | Secondary |
| Begay | Edward | Vacated | 133.0 | 0.0 | 43835 | -8651 | Kayenta | Secondary |
| Begay | Kee Herbert | Occupied | 303 | 0.0 | 66667 | -50558 | Forest Lake | Primary |
| Begay | Bilta | Occupied | 9.4 | 1.2 | 73106 | -52281 | Forest Lake | Primary |
| Begay | Denny | Occupied | 10.1 | 2.0 | 73245 | -52382 | Forest Lake | Primary |
| Begay | Lena | Occupied | 9.1 | 1.1 | 73156 | -52277 | Forest Lake | Primary |
| Begay | Phillip | Occupied | 15.0 | 175.0 | 72853 | -52119 | Forest Lake | Primary |
| Begay | Martha | Occupied | 82.0 | 174.0 | 72840 | -52016 | Forest Lake | Primary |
| Begay | Leo | Occupied | 13.0 | 176.0 | 72905 | -52044 | Forest Lake | Primary |
| Begay Jr. | Teddy | Occupied | 0.0 | 1000 | 1896 | 304 | Kayenta | Primary |
| Begishi | Henry | Occupied | 305 | 0.0 | 8092 | -152 | Kayenta | Primary |
| Benally | Elsie | Occupied | 14.0 | 120.0 | 29195 | -33814 | Forest Lake | Primary |
| Benally | Daniel and Mabel | Occupied | 18.3 | 126.0 | 28133 | -38685 | Forest Lake | Secondary |

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Benally | Daniel and Mabel | Occupied | 18.2 | 204.0 | 29578 | -34504 | Forest Lake | Primary |
| Benally | Lucille b. | Vacated | 19.0 | 306.0 | 32450 | -53875 | Forest Lake | Secondary |
| Benally | Helen | Occupied | 0.0 | 1000 | 2037 | 524 | Kayenta | Primary |
| Benally | Fern | Occupied | 306 | 0.0 | 29085 | -33952 | Forest Lake | Primary |
| Bizadi | Anna | Occupied | 0.0 | 1000 | -3353 | -2091 | Shonto | Primary |
| Bizardie | Leanne | Occupied | 307 | 0.0 | 9012 | -23707 | Shonto | Primary |
| Blackhat | Nelson | Occupied | 20.0 | 118.0 | 20247 | -35979 | Kayenta | Primary |
| Blackrock | Steven and Helena | Occupied | 308 | 0.0 | 63562 | -57417 | Forest Lake | Primary |
| Blackrock | Steven and Helena | Vacated | 119.0 | 0.0 | 17895 | -9941 | Kayenta | Primary |
| Boyd | Mary | Occupied | 21.0 | 137.0 | 21568 | -48444 | Forest Lake | Primary |
| Boyd | Mary | Vacated | 21.1 | 141.0 | 33931 | -55862 | Forest Lake | Secondary |
| Charley | Katie | Occupied | 23.1 | 40.0 | 77708 | -31786 | Forest Lake | Primary |
| Charley | Katie | Occupied | 23.0 | 41.0 | 77720 | -31740 | Forest Lake | Primary |
| Charley | Alferd | Occupied | 22.0 | 0.0 | 77282 | -31708 | Forest Lake | Primary |
| Charley | Edison | Occupied | 126.0 | 0.0 | 78055 | -31498 | Forest Lake | Secondary |
| Charley | Ardan | Occupied | 132.0 | 0.0 | 77967 | -31586 | Forest Lake | Secondary |
| Charley | Katie | Occupied | 23.2 | 0.0 | 78064 | -31594 | Forest Lake | Secondary |
| Charley | Ardean | Occupied | 309 | 0.0 | 77644 | -31779 | Forest Lake | Primary |
| Cheif | Lillian | Occupied | 120.0 | 0.0 | 19197 | -25326 | Kayenta | Primary |
| Chief | Bill and Sally | Occupied | 24.2 | 49.0 | 60453 | -15514 | Kayenta | Secondary |
| Chief | Bill and Sally | Occupied | 24.0 | 50.0 | 60590 | -15465 | Kayenta | Primary |
| Chief | Jack | Occupied | 25.1 | 99.0 | 20779 | -24344 | Kayenta | Primary |
| Chief | Jack | Occupied | 25.0 | 100.0 | 20855 | -24380 | Kayenta | Secondary |
| Chief | Lilly | Occupied | 26.0 | 102.0 | 19123 | -25441 | Kayenta | Secondary |
| Chief | Nephi | Occupied | 27.0 | 103.0 | 19506 | -25176 | Kayenta | Secondary |
| Chief | Paul | Occupied | 28.0 | 104.0 | 19144 | -25521 | Kayenta | Primary |
| Chief | Bill and Sally | Occupied | 24.1 | 0.0 | 59440 | -10863 | Kayenta | Secondary |
| Church | | Occupied | 301.0 | 86.0 | 21035 | -16355 | Kayenta | Secondary |
| Church | | Occupied | 63.4 | 0.0 | 67622 | -46949 | Forest Lake | Secondary |
| Cly | Carol | Occupied | 310 | 0.0 | 72950 | -52170 | Forest Lake | Primary |
| Cody | Tommy | Occupied | 30.0 | 0.0 | 45822 | -1217 | Kayenta | Primary |
| Crank | Lilly | Occupied | 38.0 | 61.1 | 52827 | -14605 | Kayenta | Primary |
| Crank | Albert | Occupied | 32.1 | 80.0 | 20242 | -15736 | Kayenta | Primary |
| Crank | Harrison | Occupied | 35.0 | 166.0 | 53070 | -14631 | Kayenta | Primary |
| Crank | Robert and Linda | Occupied | 40.1 | 170.2 | 60749 | -15959 | Kayenta | Secondary |
| Crank | Robert and Linda | Occupied | 40.0 | 170.1 | 60755 | -15960 | Kayenta | Secondary |
| Crank | Thomas | Occupied | 42.0 | 171.0 | 60792 | -15680 | Kayenta | Primary |
| Crank | Simon | Occupied | 41.0 | 190.0 | 64503 | -18593 | Kayenta | Secondary |
| Crank | Simon | Occupied | 41.2 | 192.0 | 60682 | -16278 | Kayenta | Primary |
| Crank | Simon | Vacated | 41.1 | 193.0 | 60881 | -16136 | Kayenta | Secondary |
| Crank | Michael and Natasha | Occupied | 39.0 | 194.0 | 61211 | -15756 | Kayenta | Primary |
| Crank | Johnston | Vacated | 36.0 | 196.0 | 59522 | -13883 | Kayenta | Secondary |
| Crank | Alice | Vacated | 112.2 | 0.0 | 59407 | -10970 | Kayenta | Primary |
| Crank | Albert | Occupied | 32.0 | 0.0 | 20585 | -15874 | Kayenta | Secondary |
| Crank | Eli | Occupied | 34.1 | 0.0 | 52886 | -14411 | Kayenta | Primary |
| Crank | Robert | Occupied | 311 | 0.0 | 60734 | -15936 | Kayenta | Secondary |
| Crank | Robert | Occupied | 311.1 | 0.0 | 60772 | -15904 | Kayenta | Primary |
| Crank jr. | Simon and Tabby | Occupied | 43.0 | 195.0 | 61578 | -15164 | Kayenta | Primary |
| Crank. | Ben | Occupied | 44.0 | 200.0 | 53664 | -13773 | Kayenta | Primary |

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Curly | Monty | Occupied | 312 | 0.0 | 36331 | -46131 | Forest Lake | Primary |
| Desmond | Raymond | Occupied | 313 | 0.0 | 9012 | -23707 | Shonto | Primary |
| Etcitty | Phillip | Occupied | 314 | 0.0 | 37825 | -11490 | Kayenta | Primary |
| Etcitty | Steven | Occupied | 315 | 0.0 | 38234 | -9846 | Kayenta | Primary |
| Etsitty | Calvin and Anna | Occupied | 45.2 | 72.1 | 38102 | -10416 | Kayenta | Primary |
| Etsitty | Calvin | Occupied | 45.1 | 72.2 | 38063 | -11031 | Kayenta | Secondary |
| Etsitty | Phillip | Occupied | 48.0 | 74.0 | 37666 | -11343 | Kayenta | Secondary |
| Etsitty | Phillip | Occupied | 48.1 | 75.0 | 37704 | -11297 | Kayenta | Secondary |
| Etsitty | Steven and Irene | Vacated | 49.0 | 89.0 | 20657 | -15658 | Kayenta | Secondary |
| Etsitty | Calvin | Occupied | 45.0 | 110.0 | 30200 | -27906 | Kayenta | Secondary |
| Etsitty | Leslie | Occupied | 47.2 | 111.0 | 30148 | -27958 | Kayenta | Secondary |
| Etsitty | Leslie | Occupied | 47.0 | 112.0 | 30216 | -27922 | Kayenta | Secondary |
| Etsitty | Laura | Occupied | 46.0 | 113.0 | 22247 | -33065 | Kayenta | Primary |
| Etsitty | Leslie | Occupied | 47.1 | 0.0 | 37259 | -10233 | Kayenta | Primary |
| Etsitty | Steven and Irene | Occupied | 49.1 | 0.0 | 38364 | -9702 | Kayenta | Primary |
| Farley | Cornelius and Grace | Vacated | 50.0 | 90.0 | 20756 | -15657 | Kayenta | Secondary |
| Freeman | Irene | Occupied | 51.0 | 97.0 | 9125 | -24125 | Shonto | Secondary |
| Freeman | Irene | Occupied | 51.1 | 0.0 | 11480 | -17868 | Shonto | Secondary |
| Freeman | Irene | Occupied | 51.2 | 0.0 | 12336 | -21247 | Shonto | Secondary |
| Gilmore | Mary | Occupied | 316 | 0.0 | 66607 | -50154 | Forest Lake | Primary |
| Harvey | Leman and Jean | Occupied | 121.0 | 0.0 | 16839 | 14254 | Kayenta | Primary |
| Herrera | Annie | Occupied | 53.1 | 79.0 | 18802 | -10533 | Kayenta | Primary |
| Herrera | Stephanie | Vacated | 53.0 | 91.0 | 21229 | -15083 | Kayenta | Primary |
| Herrera | Annie | Occupied | 53.4 | 0.0 | 18521 | -10092 | Kayenta | Primary |
| Herrera | Annie | Occupied | 53.3 | 0.0 | 18719 | -10290 | Kayenta | Secondary |
| Honie | Leonard and Marie | Occupied | 54.0 | 162.0 | 71004 | -43493 | Forest Lake | Secondary |
| Honie | Leonard and Marie | Occupied | 54.1 | 186.0 | 77408 | -39264 | Forest Lake | Secondary |
| Honie | Marie | Occupied | 317 | 0.0 | 71017 | -43485 | Forest Lake | Primary |
| James | Joe | Vacated | 113.0 | 0.0 | 20789 | -50758 | Forest Lake | Primary |
| Jim | Mabel and Bennie | Occupied | 55.0 | 51.0 | 62235 | -15923 | Kayenta | Primary |
| Jim | Mabel and Bennie | Vacated | 58.0 | 316.0 | 62189 | -15980 | Kayenta | Secondary |
| Johnson | Franado | Occupied | 59.1 | 52.0 | 60721 | -15011 | Kayenta | Primary |
| Johnson | Milton and Lily | Vacated | 57.0 | 92.0 | 20638 | -15918 | Kayenta | Secondary |
| Johnson | Milton and Lily | Occupied | 57.1 | 165.0 | 52998 | -14132 | Kayenta | Primary |
| Johnson | Paul and Thelma | Occupied | 58.1 | 198.0 | 60219 | -15449 | Kayenta | Primary |
| Johnson | Grace | Occupied | 56.0 | 0.0 | 59358 | -14608 | Kayenta | Primary |
| Johnson | Spencer | Occupied | 59.0 | 0.0 | 60762 | -15145 | Kayenta | Secondary |
| Johnson | Bert | Occupied | 129.0 | 0.0 | 53098 | -14195 | Kayenta | Primary |
| Johnson | Paul and Thelma | Occupied | 58.2 | 0.0 | 59857 | -11128 | Kayenta | Secondary |
| Johnson | Ernest | Occupied | 319 | 0.0 | 60269 | -15525 | Kayenta | Primary |
| Johnson | Theresa | Occupied | 319 | 0.0 | 8323 | -23639 | Shonto | Primary |
| Johnson jr. | Paul | Occupied | 122.0 | 0.0 | 60286 | -15584 | Kayenta | Primary |
| Joy | House | Occupied | 0.0 | 1000 | -1227 | -2041 | Shonto | Primary |
| Kee | Charie and Sarah | Occupied | 60.0 | 149.0 | 66658 | -25391 | Kayenta | Primary |
| Kelly | Sadie and Preston | Occupied | 61.0 | 44.0 | 67362 | -26023 | Kayenta | Primary |
| Kelly | Tracy | Occupied | 320 | 0.0 | 66059 | -25412 | Kayenta | Primary |
| Kescoli | Kee John and Helen | Vacated | 64.0 | 4.0 | 56972 | -52497 | Forest Lake | Secondary |
| Kescoli | Kee John | Vacated | 64.1 | 5.0 | 57025 | -52381 | Forest Lake | Secondary |
| Kescoli | Maxine | Vacated | 63.1 | 6.0 | 58003 | -52045 | Forest Lake | Secondary |

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Kescoli | Earl and Ancita | Occupied | 62.0 | 129.0 | 37377 | -45380 | Forest Lake | Primary |
| Kescoli | Maxine | Vacated | 63.3 | 308.0 | 55300 | -52480 | Forest Lake | Secondary |
| Kescoli | Kee John | Occupied | 321 | 0.0 | 62445 | -56981 | Forest Lake | Secondary |
| Kescoli | Maxine | Occupied | 63.2 | 0.0 | 67598 | -47100 | Forest Lake | Primary |
| Kescoli | Maxine | Occupied | 322 | 0.0 | 67918 | -46683 | Forest Lake | Primary |
| Kescoli | Kee John | Occupied | 321.1 | 0.0 | 62495 | -56843 | Forest Lake | Primary |
| Lake | Dzanh | Occupied | 68.0 | 123.0 | 36144 | -33589 | Forest Lake | Primary |
| Lake | Sam | Occupied | 74.0 | 0.0 | 37238 | -31188 | Forest Lake | Primary |
| Lake | Ated | Vacated | 65.3 | 127.0 | 31271 | -39701 | Forest Lake | Secondary |
| Lake | Mary | Occupied | 70.0 | 132.0 | 36314 | -46098 | Forest Lake | Secondary |
| Lake | Dwayne | Occupied | 71.1 | 133.0 | 36524 | -46184 | Forest Lake | Primary |
| Lake | Clarence | Occupied | 72.0 | 134.0 | 36418 | -46276 | Forest Lake | Primary |
| Lake | Molita | Occupied | 73.0 | 159.0 | 38283 | -31423 | Forest Lake | Primary |
| Lake | Milton | Occupied | 67.1 | 180.2 | 36726 | -46379 | Forest Lake | Primary |
| Lake | Sam | Occupied | 69.0 | 125.0 | 37063 | -31361 | Forest Lake | Secondary |
| Lake | Clarence | Occupied | 72.1 | 180.3 | 36475 | -46337 | Forest Lake | Primary |
| Lake | Joe | Occupied | 69.1 | 0.0 | 36489 | -32596 | Forest Lake | Primary |
| Lake | Ester | Occupied | 323 | 0.0 | 38140 | -30961 | Forest Lake | Primary |
| Lake | Cindy | Vacated | 0.0 | 0.0 | 39262 | -52813 | Forest Lake | Secondary |
| Lake | Ated | Occupied | 324 | 0.0 | 37323 | -31166 | Forest Lake | Primary |
| Lake | Ester | Occupied | 323.1 | 0.0 | 38284 | -30915 | Forest Lake | Primary |
| Lane | Ronald and Thelma | Occupied | 75.0 | 0.0 | 58454 | -15119 | Kayenta | Primary |
| Laughter | Derrick | Occupied | 52.1 | 0.0 | 66534 | -50099 | Forest Lake | Primary |
| Leonard | Eugene | Occupied | 76.1 | 147.0 | 20927 | -49505 | Forest Lake | Secondary |
| Leonard | Eugene | Occupied | 76.0 | 148.0 | 20932 | -49461 | Forest Lake | Primary |
| Leonard | Fannie | Occupied | 125.1 | 0.0 | 15962 | 14212 | Kayenta | Primary |
| Little | Jimmie and Teresa | Vacated | 79.1 | 7.0 | 57058 | -52478 | Forest Lake | Secondary |
| Little | Robert | Vacated | 80.0 | 93.0 | 20514 | -15792 | Kayenta | Secondary |
| Little | Ben and Ida | Vacated | 78.0 | 139.0 | 32238 | -54407 | Forest Lake | Secondary |
| Little | Sam and Ella | Vacated | 81.0 | 140.0 | 32223 | -54464 | Forest Lake | Secondary |
| Little | Jimmie and Teresa | Occupied | 79.0 | 168.0 | 60515 | -13905 | Kayenta | Primary |
| Little | Amy | Vacated | 77.0 | 197.0 | 60618 | -13890 | Kayenta | Secondary |
| Little | Sam and Ella Mae | Occupied | 325 | 0.0 | 22051 | -45629 | Forest Lake | Primary |
| Little | Sam and Ella Mae | Occupied | 326 | 0.0 | 22156 | -45466 | Forest Lake | Primary |
| Little | Thersa | Occupied | 327 | 0.0 | 62511 | -56996 | Forest Lake | Primary |
| Little | Amy | Occupied | 328 | 0.0 | 60903 | -13893 | | Primary |
| Little | Harry | Occupied | 329 | 0.0 | 61045 | -14035 | | Primary |
| Luna | Bessie | Occupied | 83.1 | 76.0 | 16286 | -7739 | Kayenta | Primary |
| Luna | Darryl | Occupied | 83.2 | 0.0 | 16224 | -7935 | Kayenta | Primary |
| Manson | Sally | Occupied | 330 | 0.0 | 9018 | -25498 | Shonto | Primary |
| Manson | Anna | Occupied | 331 | 0.0 | 9118 | -25673 | Shonto | Primary |
| Manymules | Daughter | Occupied | 123.0 | 0.0 | 36501 | -46462 | Forest Lake | Secondary |
| Mitchell | Bobby | Occupied | 332 | 0.0 | 7984 | -470 | Kayenta | Primary |
| Nelson | Edcitty | Occupied | 86.0 | 88.0 | 21102 | -15650 | Kayenta | Primary |
| Peaches | Wesley | Vacated | 0.0 | 26.0 | 21860 | 11104 | Kayenta | Secondary |
| Peaches | Bruce and Evelyn | Occupied | 0.0 | 1000 | 2911 | 1041 | Kayenta | Primary |
| Pulinos | George and Mae | Vacated | 88.1 | 14.0 | 55144 | -49446 | Forest Lake | Secondary |
| Pulinos | George and Mae | Vacated | 88.0 | 0.0 | 61563 | -51485 | Forest Lake | Primary |
| Russel | Jerry | Vacated | 89.0 | 10.0 | 55340 | -52545 | Forest Lake | Secondary |

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Russell | Kee and Julia | Occupied | 90.0 | 11.0 | 55418 | -52613 | Forest Lake | Secondary |
| Russell | Keith and Pauletta | Occupied | 91.0 | 53.0 | 60094 | -15314 | Kayenta | Primary |
| Russell | Keith and Pauletta | Vacated | 91.1 | 54.0 | 60147 | -14977 | Kayenta | Secondary |
| Salvage | Marlene | Occupied | 333 | 0.0 | 36279 | -33424 | Forest Lake | Primary |
| Savage | Linda | Occupied | 92.0 | 124.0 | 36254 | -33426 | Forest Lake | Secondary |
| Savage | Sarah | Occupied | 93.0 | 143.0 | 35519 | -32618 | Forest Lake | Secondary |
| Savage | Cindy | Occupied | 334 | 0.0 | 36222 | -33325 | Forest Lake | Primary |
| Schmitt | Henry | Vacated | 94.0 | 145.0 | 39208 | -51331 | Forest Lake | Secondary |
| Seaton | Evelyn | Vacated | 95.1 | 0.0 | 53763 | -14702 | Kayenta | Secondary |
| Segay | Lavonne | Occupied | 124.0 | 0.0 | 36411 | -46581 | Forest Lake | Primary |
| Sherlock | Tom and Julia | Occupied | 96.0 | 15.0 | 55981 | -49459 | Forest Lake | Secondary |
| Smith | Fred | Occupied | 99.0 | 115.0 | 17101 | -32252 | Kayenta | Secondary |
| Smith | Fred | Occupied | 99.2 | 116.0 | 17181 | -32658 | Kayenta | Primary |
| Smith | Fred | Occupied | 99.1 | 117.0 | 17302 | -32618 | Kayenta | Secondary |
| Smith | Bessie | Occupied | 98.0 | 119.0 | 19498 | -36976 | Kayenta | Primary |
| Smith | Ambrose | Occupied | 97.0 | 164.0 | 19085 | -36257 | Kayenta | Primary |
| Tallman | Fanae and Stanley | Occupied | 101.0 | 95.0 | 20401 | -16321 | Kayenta | Primary |
| Tallman | Stanley and Fanae | Occupied | 101.1 | 0.0 | 20323 | -16171 | Kayenta | Primary |
| Tallman | Carol | Occupied | 335 | 0.0 | 19331 | -25330 | Kayenta | Primary |
| Tso | Roy and Alice | Vacated | 102.1 | 47.0 | 44927 | -21578 | Kayenta | Secondary |
| Tso | Roy and Alice | Occupied | 102.0 | 48.0 | 44745 | -21570 | Kayenta | Primary |
| Tso | Roy and Alice | Occupied | 102.2 | 157.0 | 45000 | -21470 | Kayenta | Secondary |
| Tso | Victoria | Occupied | 11.0 | 322.0 | 44856 | -21441 | Kayenta | Primary |
| Tsosie | Stanley and Connie | Vacated | 103.0 | 302.0 | 16438 | 6750 | Kayenta | Secondary |
| Tsosie | Stanley | Occupied | 336 | 0.0 | 7300 | 4941 | Kayenta | Primary |
| Tsosie | John and Elsie | Occupied | 0.0 | 1000 | 2733 | 854 | Kayenta | Primary |
| Tsosie | Francis | Occupied | 337 | 0.0 | 7459 | 5022 | Kayenta | Primary |
| Vandever | Elsie | Occupied | 104.0 | 154.1 | 36542 | -23295 | Kayenta | Primary |
| Vandever | Elsie | Occupied | 104.1 | 154.2 | 36673 | -23320 | Kayenta | Primary |
| Vandever | Lorraine | Occupied | 105.0 | 178.0 | 36887 | -46202 | Forest Lake | Primary |
| Watson | Bessie | Occupied | 0.0 | 1000 | 1546 | 468 | Kayenta | Primary |
| Whitehair | Zonnie | Occupied | 39.0 | 39.0 | 67616 | -43043 | Forest Lake | Primary |
| William | George | Occupied | 338 | 0.0 | 7453 | 4807 | Kayenta | Primary |
| William | Bernice | Occupied | 339 | 0.0 | 7474 | 4850 | Kayenta | Primary |
| William | Gerald | Occupied | 340 | 0.0 | 7627 | 5209 | Kayenta | Primary |
| Williams | George and Leta | Vacated | 106.0 | 301.0 | 15757 | 7012 | Kayenta | Secondary |
| Williams | Jack | Vacated | 341 | 0.0 | 61711 | -51463 | Forest Lake | Primary |
| Wilson Jr. | John | Occupied | 0.0 | 1000 | -1144 | -1522 | Shonto | Primary |
| Yazzie | Alice | Occupied | 107.3 | 18.0 | 54941 | -49982 | Forest Lake | Secondary |
| Yazzie | Larry | Occupied | 111.1 | 45.0 | 65880 | -25559 | Kayenta | Primary |
| Yazzie | Marilyn | Occupied | 111.0 | 46.0 | 66022 | -25379 | Kayenta | Primary |
| Yazzie | Rose | Occupied | 112.5 | 55.0 | 60433 | -13457 | Kayenta | Secondary |
| Yazzie | Rose | Occupied | 112.4 | 56.0 | 60519 | -13375 | Kayenta | Secondary |
| Yazzie | Rose | Occupied | 112.3 | 57.0 | 60522 | -13570 | Kayenta | Primary |
| Yazzie | Alice | Vacated | 107.2 | 0.0 | 29465 | 10017 | Kayenta | Secondary |
| Yazzie | Alice | Vacated | 107.1 | 65.0 | 28579 | 6491 | Kayenta | Secondary |
| Yazzie | Alice | Occupied | 107.0 | 66.0 | 28650 | 6429 | Kayenta | Primary |
| Yazzie | Etta Mae | Occupied | 33.4 | 81.0 | 20001 | -16199 | Kayenta | Secondary |
| Yazzie | Etta Mae | Occupied | 33.3 | 82.0 | 20197 | -16050 | Kayenta | Secondary |

**Attachment 6**
**Pre-Blast Survey Sites Map Drawing #94720**
**Residential List**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Yazzie | Etta Mae | Occupied | 33.2 | 84.0 | 20399 | -16006 | Kayenta | Secondary |
| Yazzie | Etta Mae | Occupied | 33.1 | 85.0 | 20448 | -15964 | Kayenta | Primary |
| Yazzie | Etta Mae | Vacated | 37.0 | 87.0 | 21169 | -15342 | Kayenta | Primary |
| Yazzie | Rena | Vacated | 95.0 | 94.0 | 20814 | -15319 | Kayenta | Primary |
| Yazzie | Etta Mae | Occupied | 33.5 | 98.0 | 19423 | -19958 | Kayenta | Primary |
| Yazzie | Linda | Occupied | 110.0 | 114.0 | 22387 | -32954 | Kayenta | Primary |
| Yazzie | James | Occupied | 109.0 | 152.0 | 18776 | -10734 | Kayenta | Primary |
| Yazzie | Rose | Occupied | 112.6 | 169.0 | 60665 | -14310 | Kayenta | Secondary |
| Yazzie | Alice | Vacated | 107.4 | 207.0 | 22989 | 4195 | Kayenta | Secondary |
| Yazzie | Arlene | Occupied | 108.0 | 307.0 | 21736 | -51652 | Forest Lake | Primary |
| Yazzie | Rose | Occupied | 34.0 | 317.0 | 60500 | -13570 | Kayenta | Secondary |
| Yazzie | Bobby | Occupied | 342 | 0.0 | 63044 | -57117 | Forest Lake | Secondary |
| Yazzie | James | Vacated | 109.1 | 0.0 | 28980 | 7615 | Kayenta | Secondary |
| Yazzie | Ned and Betty | Occupied | 343 | 0.0 | 8340 | -383 | Kayenta | Primary |
| Yazzie | Anderson | Occupied | 344 | 0.0 | 8505 | -281 | Kayenta | Primary |
| Yazzie | Al | Occupied | 0.0 | 1000 | -849 | -2089 | Shonto | Primary |
| Yazzie | Harry | Occupied | 345 | 0.0 | 8107 | 518 | Kayenta | Primary |
| Yazzie | Jerry | Occupied | 346 | 0.0 | 9191 | 3482 | Kayenta | Primary |
| Yazzie jr. | Silas | Occupied | 128.0 | 0.0 | 77919 | -26046 | Kayenta | Secondary |