Ventilation System, Methane and Dust Control Plan

Contents

1.	Name and address of company:	Bottle Trucking Company Post Office Box 5555 Mt. Olivet, AB 15444
2.	Name, address, and Mine I.D. No.	Bottleneck #1 Mine 7734 End of Line Road Carbon County Mt. Olivet, AB 15444 05-00001 Phone No.: 101-555-9786
3.	Names of responsible officials:	Walter Richards, Superintendent Jon Overton, General Mine Foreman Walter Harrington, Safety Director
4.	Life of mine:	Greater than one year
5.	Number of employees (maximum):	Surface 9, Underground 56, Total 65

6. Temporary stoppings are constructed of brattice cloth or approved plastics, framed in to create an effective air seal.

   Permanent stoppings are 6" x 8" x 16" core or solid type concrete blocks with mortared joints and plastered with mortar. Where required, steel mandoors will be installed in permanent stoppings. Doors will be installed toward the higher pressure entry and be equipped with spring closures.

   Regulators are made up as slide doors and installed on frameworks and cemented into the openings provided in the concrete block walls.

   Ventilation control doors (installed as needed) are of wood construction, attached to 4" x 4" perimeter frameworks. The double swinging doors are mainly ¾" exterior plywood, braced by 1-inch framing. All wood surfaces are coated with fire resistant paint. Steel hinges are set into the 4" x 4" framework. A common latch lock is used to secure doors from either side. Several of the doors are equipped with slide regulators.

7. Only one exhausting fan is utilized. This is a 72" axial vane fan. Method used in ventilating entry, room, or crosscut at face when abandoned is: An air connection is made with line brattice.

8. A variable pitch, 72" diameter Aero-vane fan at the mouth of the #1 return air course drift induces exhaust ventilation. The mine is ventilated by a current of air entering the mine at the drift opening through No. 3 and No. 4 air courses. A total of 140,000 cfm exits the mine via the fan at No. 1 air course.

9. Personnel are transported by rail on battery powered mantrips and jitneys. Equipment and supply trips are pulled by permissible battery locomotives.

10. Coal is transported from the faces by shuttle cars and discharged onto feed/breaker units. Coal is then transported by a series of 36" and 42" wide conveyor belts to the outside raw coal pile.

11. Belt and track entries are connected and are ventilated by a common split of intake air, which is separate from the main intake. This air moves inby and is routed to the return by pipe overcasts placed near the belt tailpieces. Air velocity is 60 fpm.

12. Methane and dust control plan:

    Line brattice shall direct the air current to the working places and check curtains shall be installed in conjunction with line brattice to minimize air leakage and to permit traffic to pass through without adversely affecting the face ventilation. Figures 1 and 2 illustrate typical face ventilation configurations.

    All abandoned areas of the mine shall be permanently sealed. Figure 3 illustrates the sequence for installing permanent seals.

    Water shall be piped to the water sprays on the continuous miner at the rate of 20 gpm at 50 psi. This is for the purpose of allaying the coal dust at the origin during the cutting of coal. The continuous miner is provided with a deluge type water spray system for dust suppression. The roof bolting machine is equipped with integral dust control by suction through the hollow drill steel.

    Bleeder system - During pillar recovery, a bleeder system shall be maintained. This system will be used to control air passing through the area and to continuously dilute and move methane-air mixtures, other gasses, dusts and fumes from the worked out area, away from active workings into the return air course. Figure 4 illustrates a typical bleeder configuration.

    A minimum of one (1) entry shall be maintained around the perimeter of the pillar recovery area. The entry will, at the minimum, have a single row of cribs installed in the center of the entry. Entrances to all crosscuts leading to the caved area will have two cribs installed.

    a. Every 7 days, at least one entry in each set of bleeder entries shall be traveled in its entirety. Oxygen and methane concentrations, air quantities, and a test to determine proper direction of air flow will be made at appropriate measurement locations.

b. A certified person will evaluate the effectiveness of the bleeder system by: 1) measuring the methane and oxygen concentrations; 2) measuring the air quantity; and 3) testing to determine if the air is moving in the proper direction. At the minimum, these measurements shall be made where 1) air enters the worked out area and 2) before the air enters the return split of air.

13. All loose coal and coal dust will be loaded and removed from the mine.

14. a. Methane examinations at the face will be made at 20 minute intervals or more frequently if necessary. Checks shall be made with an approved methane or multi-gas detector.

    b. Return airways are accessible and will be examined weekly by the mine foreman or his assistant using a flame safety lamp and approved methane or multi-gas detector. The examiner will sign all date boards.

15. Refer to attached sketches showing face ventilation plans with auxiliary fan.

16. Mine Maps:

    a. There are no oil and gas wells, active or abandoned, within the mine property limits.
    b. There are no working mines above or below the workings of the Bottleneck No. 1 Mine.
    c. Mine fan data can be found on the attached ventilation map.
    d. The location of the Bottleneck No. 1 Mine surface openings, air direction flow and air quantities are indicated on the attached ventilation map.
    e. There are no major faults or slips that may affect ventilation.
    f. There are no entries blocked by water or roof falls.
    g. Projections for future mining are displayed on the map.

17. a. Persons certified in the use of multi-gas detection units and who regularly carry these units include: General mine foreman, shift foremen, section foremen, and fire bosses.

    b. Persons certified in the use of portable methane detectors and who regularly carry these units include: Continuous miner operators and roof bolter operators.

    c. Persons who carry anemometers include: General mine foreman, shift foremen, section foremen, and fire bosses.

18. Attachments:

    Bottleneck No. 1 Mine Ventilation Plan: diagram of face ventilation for development section; diagram of face ventilation for pillar section; diagram of seal sequence plan; property limit map*; diagram showing numbers & locations of water sprays for the 14CM 1 continuous miner*.

    *Previously on file

(Required under Section 75.316 of CFR, Part 75)

Date: July 28, 1999

Company: Bottle Trucking Company

Mine: Bottleneck No. 1

Mine I.D. No.: 05-00001

1. Dust control measures taken on high-risk equipment:

Equipment	PSI	GPM	No. Operating sprays	Type
a. Model 14CM1 Continuous Miner	50	20	2	#1
b.				
c.				

Use reverse side for additional information.

2. Source of water: 10,000-gallon water tank that is supplied by a 125,000 gallon pond fed by runoff water.

3. Are filters used in the section water system? Yes No **X**
Where:

4. Is a wetting agent used in the water system? Yes No **X**
Kind:

5. Roof bolting machine:

a. Is water used through the drill stem to allay dust while drilling? Yes No **X**

b. Are drills equipped with permissible dust collectors? Yes **X** No

(1) Manufacturer: Dust-all Dust Box with Quiet Aire Blower

(2) Type: DB-7100a

(3) Approval number: 6GL-1534A-1

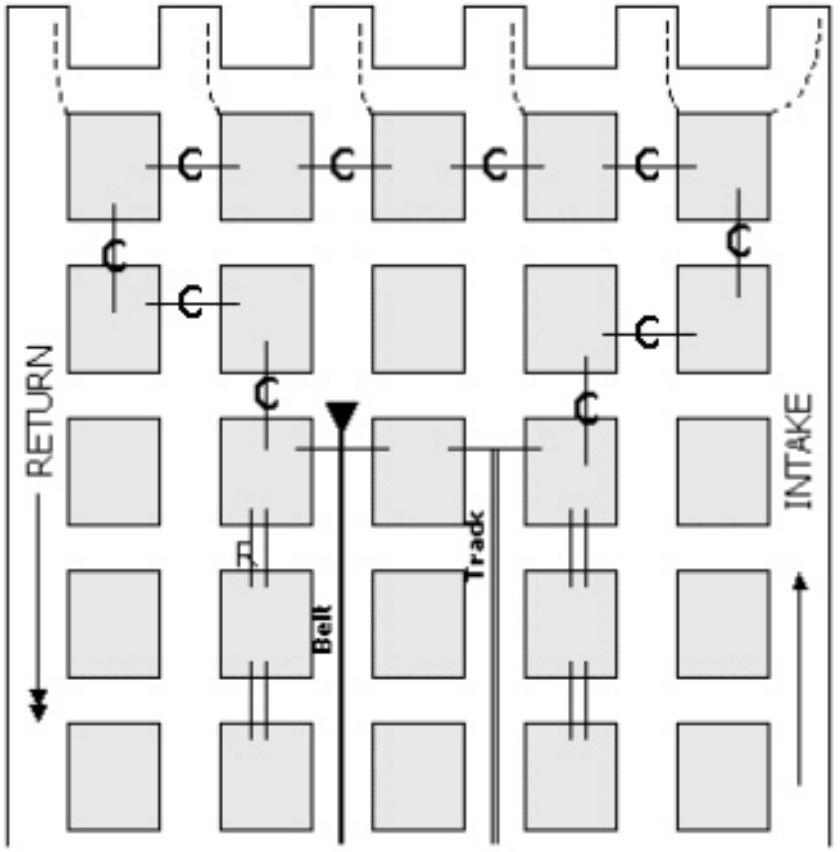
6. What means of dust control are applied to roadways over which rubber tired equipment is operated?

Roads tend to be naturally wet, especially during summer months. During infrequent periods of dry conditions, shuttle car and other roadways will be wetted or calcium chloride spread as needed.

7. Are water sprays used to control dust at belt transfer, loading, or dumping points? Yes **X** No
   Where: At all section loading points.
8. If other means are used to control dust at belt transfer, loading, or dumping points, explain in detail.
9. Is the coal that is cut or shot sprayed with water before loading operations? Yes No **X**
10. Is water stemming used in blasting operations? Yes **X** No
11. Are scrubber type dust collectors used? Yes No **X**
    a. Manufacturer:
    b. Type:
    c. Capacity:
12. Are line curtains used for blowing, exhausting, or both? Both
13. What is the maximum distance line curtain is kept from the face? 5 feet
14. Are auxiliary fans and tubing used? Yes No **X**
15. Are they used for blowing or exhausting? N/A
16. Type of approved respiratory equipment available for employees:
    Dustgrabber 20 and 30, Approval No. DF-605-C1984.
17. Are any other devices, methods, or procedures used for dust control?
    Calcium chloride will be applied to the haulage ways as needed for dust suppression.

Note: Maps, schematics, or sketches that more clearly substantiate answers to the questions may be submitted. Use reverse side for additional information.

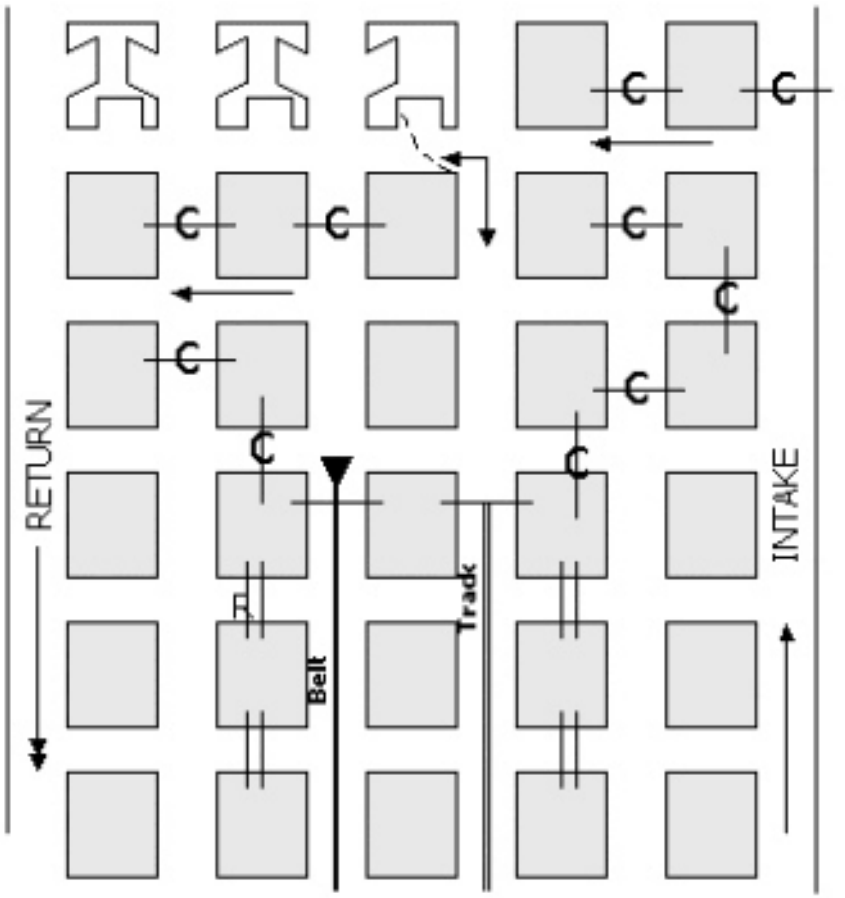
Typical Development Section



Ventilation: Typical Development Section
(not to scale)

R	Regulator
C	Check curtain
	Face line brattice
	Permanent stopping
	Intake air
	Return air
	Neutral air check

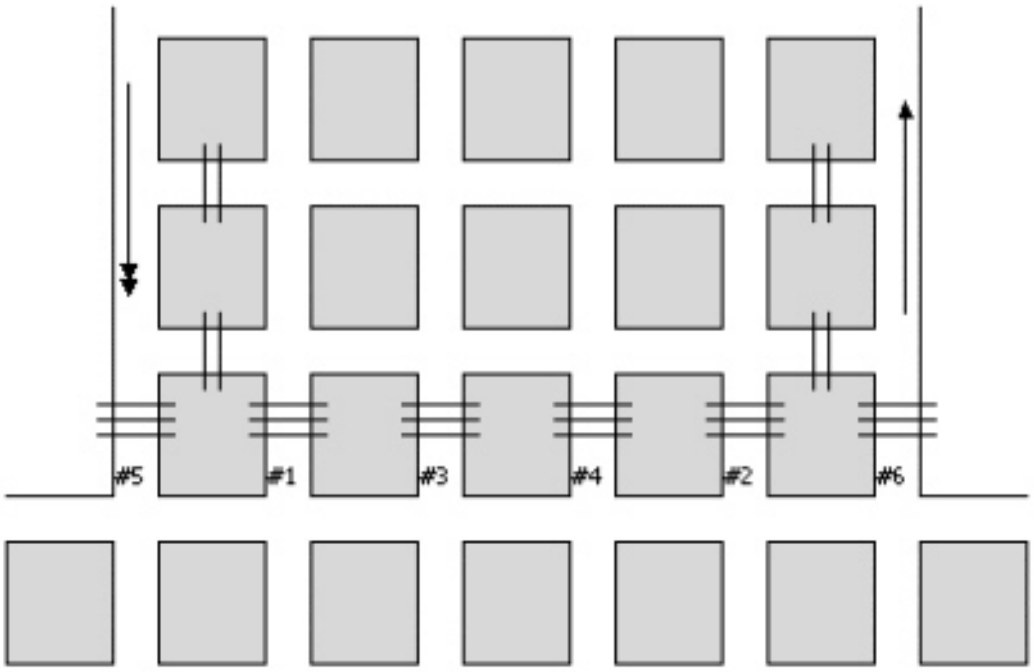
Typical Pillar Section



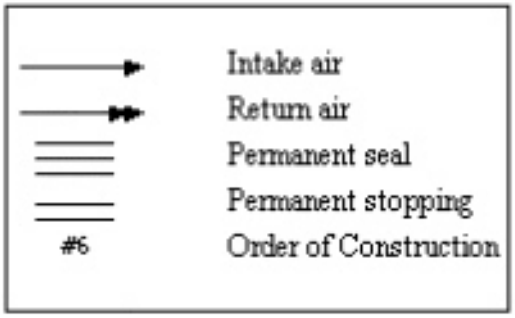
Ventilation: Typical Pillar Section
(not to scale)

R	Regulator
C	Check curtain
	Face line brattice
	Permanent stopping
	Intake air
	Return air
	Neutral air check

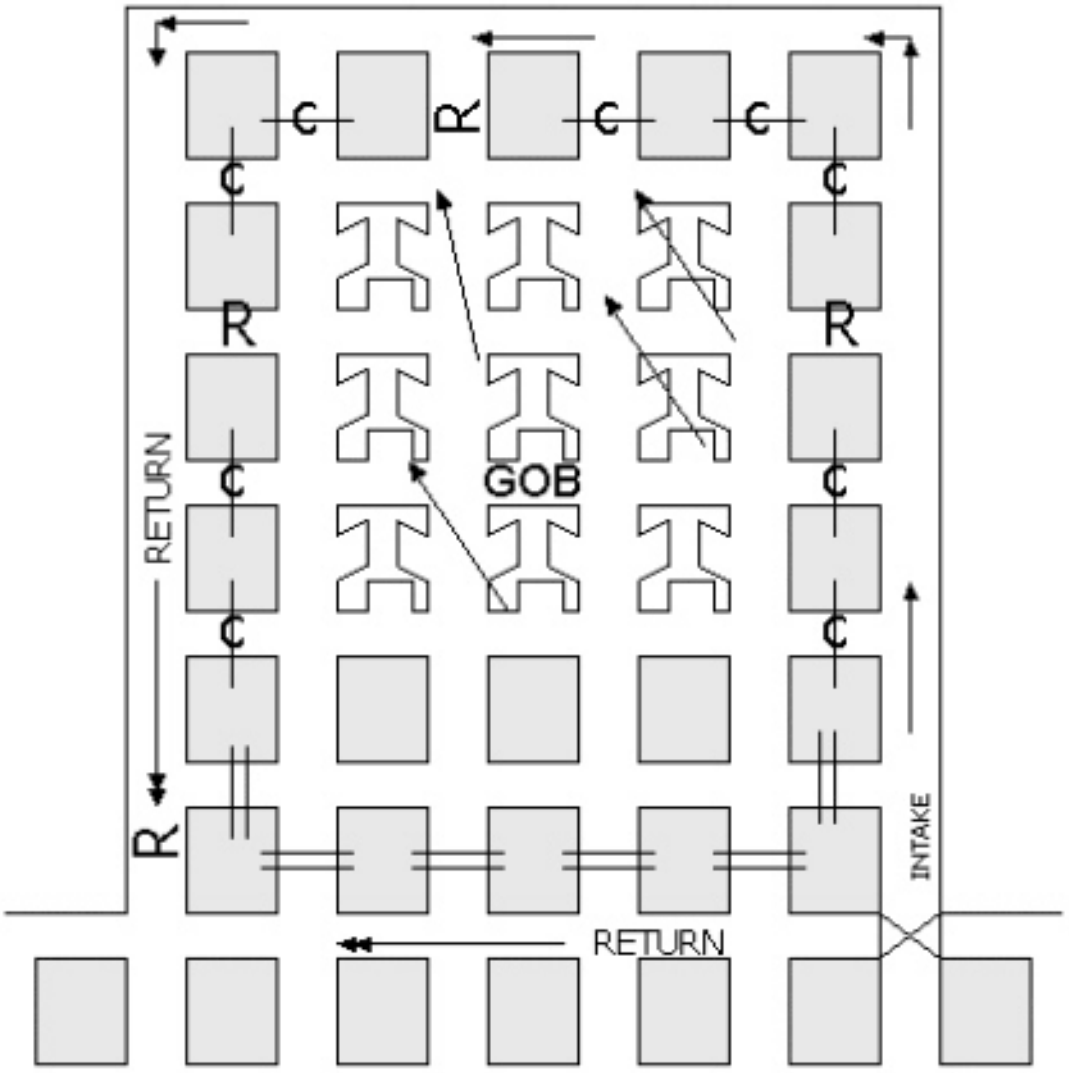
Seal Sequence



Seal Sequence Plan
Not to scale



Bleeder Setup



Ventilation: Typical Bleeder Setup for Pillar Recovery Sections or Pillared Areas Not Sealed (not to scale)

R	Regulator
C	Check curtain
	Permanent stopping
	Intake air
	Return air