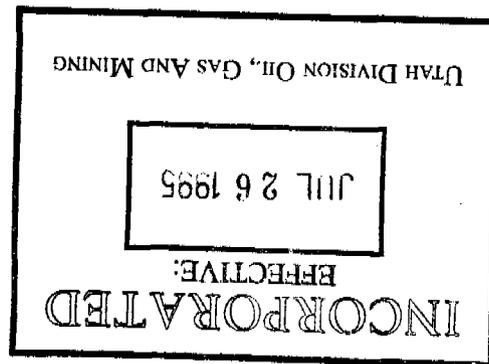


APPENDIX 2-7  
NOTICES OF VIOLATION



INCORPORATED  
EFFECTIVE:

Appendix 2-7  
Castle Gate Mine

JUL 26 1995

June 1995

UTAH DIVISION OIL, GAS AND MINING

NOTICES OF VIOLATION

Date issued	Number & Agency	Nature of Violation	Abatement Action Taken	Administrative Proceedings and Current Status
March 9, 1992	N 92-28-1-1 UDOGM	Failure to construct and operate in accordance with approved plans and requirements for sediment ponds. Pond 012B - unauthorized construction was occurring on the pond and the spillways had been removed and were not functional.	<p><u>Actions Required:</u> Reconstruct pond spillways, Submit as-built designs to verify that sediment Pond 012B meets the requirements of the regulation. Demonstrate that as-built designs are approvable or obtain approval of remedial design which, when implemented, will bring Pond 012B in to compliance. Complete any remedial construction needed to bring Pond 012B in to compliance.</p>	4/24/92 - terminated/vacated - all remedial action was completed.
April 7, 1992	N 92-39-2-1 UDOGM	Failure to receive approval from the Division to gravity discharge from Utah Fuel No. 1 Mine and comply with regulation R645-301-731.521.	<p><u>Actions Required:</u> 1. Stop discharging or receive the necessary approval from the Division, and if discharging is request, submit necessary plan and designs and permits to adequately handle the discharge. 2. If plans and designs are submitted and approved, begin construction accordingly.</p> <p>Abate remedial action #1 by May 8, 1992 at 12:00 p.m. Abate remedial action #2, if construction is required, by June 8, 1992 at 12:00 p.m.</p>	<p>5/5/92 - Requested UDOGM to extend abatement time indefinitely. 5/13/92 - Step #1 extended to 6/8/92. Step #2 extended to 7/6/92. 5/21/92 - Requested extension until 6/15/92 to correspond with Adit #1 permit revision submittal. Step #1 abatement time extended to 6/15/92. 6/4/92 - Requested another 30-day extension if violation not vacated. 6/15/92 - VACATED</p>

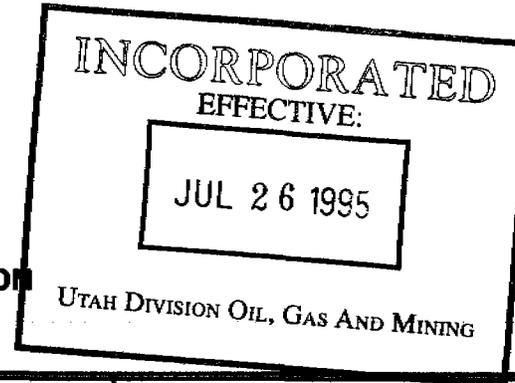
NOTICES OF VIOLATION

Date issued	Number & Agency	Nature of Violation	Abatement Action Taken	Administrative Proceedings and Current Status
April 28, 1992	N 92-39-3-2 UDOGM	1. Failure to maintain diversion to design standards of the mine plan. R645-742-332 violated. 2. Failure to prevent, to the extent possible, additional contributions of sediment to stream flow. R645-742 and R645-742- 111 violated.	<u>Actions Required:</u> 1. Comply with the design standards of the approved plan. 2. Comply with R645-742 and R645-742-111.	5/11/92 - Requested 30-day extension. 5/14/92 - Modification issued - abatement time to be 6/27/92. 6/3/92 - Modification issued (Part 1 of 2). Abatement time extended to 6/26/92. 7/7/92 - Parts 1 and 2 VACATED.
May 15, 1992	N 92-41-3-1 UDOGM	1. Failure to maintain a diversion. 2. Failure to construct a road drainage control culvert to avoid plugging at an inlet. R645-301-742.310 and .423 violated.	<u>Action Required:</u> 1. Restore drop inlet by removing the piece of culvert blocking the opening on the west side of the road by 6/1/92. 2. Submit plans and designs describing this inlet by 6/15/92.	Abatement time extended to 6/1/92 at 5:00 p.m. 6/15/92 - VACATED.
June 8, 1992	N 92-41-4-2 UDOGM	1. Failure to follow the approved plan for pest (weed) control. Failure of established plant species to meet the requirements of Utah noxious weed laws. Violation of R645-301-341.240, R645-301-351, and R645-301-353-200. 2. Failure to monitor reclamation according to the approved plan. Violation of R645-301-351 and 341-250.	<u>Actions Required:</u> 1. Develop a plan to control noxious weeds...implement the plan for Dyer's Wood control in Hardscrabble Canyon (by 8/19/92). 2. Monitor revegetation at Goose Island according to plans presented on pg. 64 of Chapter 9 of the approved plan. Submit results to the Division by 7/31/92.	6/18/92 - Requested violation #1 be vacated. If not, request 30-day extension. 6/19/92 - Submitted letter of remediation for violation 1 of 2. 6/29/92 - Violation 1 terminated. 8/3/92 - Violation 2 terminated. 8/6/92 - ACC requested settlement conference.

INCORPORATED  
 EFFECTIVE:  

JUL 26 1995

  
 UTAH DIVISION OIL, GAS AND MINING



June 1995

NOTICES OF VIOLATION

Date Issued	Number & Agency	Nature of Violation	Abatement Action Taken	Administrative Proceedings and Current Status
Sept. 17, 1992	N 92-39-7-1 UDOGM	Failure to maintain diversion to performance standards. Violation of R645-742-332.  Erosion in ditch or refuse pile.	<u>Actions Required:</u> Repair diversion as required in approved M&RP by 11/16/92 at 12:00 p.m.	10/13/92 - Advised UDOGM of no approved ditch design in order to remediate - existing plan is under Division Orders to revise and revision is not yet approved. 11/10/92 - Extension requested to 1/15/93. 11/13/92 - Requested informal settlement conference. 11/20/92 - Abatement time extended to 1/15/93. 12/18/92 - Informal hearing held. 12/21/92 - Requested extension to 7/1/93. 12/31/92 - ORDER - 1) NOV is upheld; 2) assessment is due & payable within 30 days from the date of order. 01/6/93 - Abatement time extended to 6/30/93. 01/15/93 - Finalized assessment of \$400.00. 08/31/93 - Remediation completed. 10/13/93 - VACATED
Aug. 25, 1993	N 93-41-2-1 UDOGM	Failure to test UPDES discharge at Point O14 for total iron.	<u>Actions Required:</u> Test in future for total iron.	9/17/93- Proposed penalty assessment w/two informal appeal options available. September letter requesting informal conference. 10/28/93 - Informal hearing and assessment conference set for 12/3/93. 12/10/93 - Finalized assessment. 12/16/93 - Check request for amount of fine - \$150.00 was processed. 01/4/94 - VACATED.

June 1995

**INCORPORATED**  
EFFECTIVE:

JUL 26 1995

UTAH DIVISION OIL, GAS AND MINING

*Administrative Proceedings  
and Current Status*

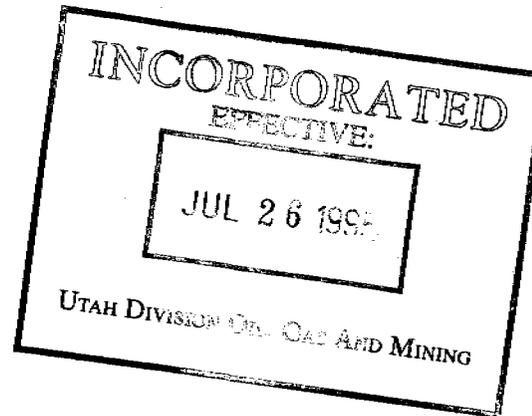
**NOTICES OF VIOLATION**

Date issued	Number & Agency	Nature of Violation	Abatement Action Taken	Administrative Proceedings and Current Status
March 9, 1994	N 94-41-1-1 UDOGM	Failure to perform reclamation operations. Failure to use approved seed mixture on selected reclaimed sites in 1993.	<u>Actions Required:</u> Seed areas in Hardscrabble and Sowbelly with blue aster and Basin wild rye, to comply with approved seed mixture.	4/1/94 - Work completed, VACATED.
June 27, 1994	N 94-41-2-2 (1) UDOGM	<ol style="list-style-type: none"> <li>1. Failure to construct a sediment control structure to M&amp;RP.</li> <li>2. Failure to construct siltation structures before beginning reclamation operations.</li> <li>3. Constructing impoundment structures without designs or approval.</li> <li>4. Failure to follow installation sequence for sediment control structures in M&amp;RP.</li> </ol>	<u>Actions Required:</u> Construct berm on east side of SBRD-1D. Construct Pond 17 and diversion structures leading to it. Remove spoil that blocks SBRD-1B. Provide interim sediment control in areas not reporting to sediment pond. Cease reclamation activities until siltation structures are in place.	Comply with Item 5 immediately. Items 1, 3, and 4 comply with by July 5, 1994. Item 2 comply with by July 15, 1994. Extended to August 1, 1994, the August 9, 1994. 8/5/94 - Item 5 VACATED. 8/16/94 - Items 1 - 4 VACATED.
	N 94-41-2-2 (2) UDOGM	Failure to comply with Air Quality Approval Order and regulation under Clean Air Act.	<u>Actions Required:</u> Apply water to surface area where equipment travels in Sowbelly Gulch.	Comply by June 27, 1994. 7/5/94 - VACATED
July 5, 1991	N 91-28-2-1 UDOGM	Failure to comply with the terms of the Division Order dated Dec. 18, 1990.	<u>Actions Required:</u> Comply with items, 2, 3, 4, 5, 6, 13, 14, 16, 17, 18, 19, 21, 23, and 25. Submit requested information.	Submittal due Aug. 5, 1991. Due date extended to Sept. 19, 1991. 11/3/94 - Abatement satisfied per settlement agreement.

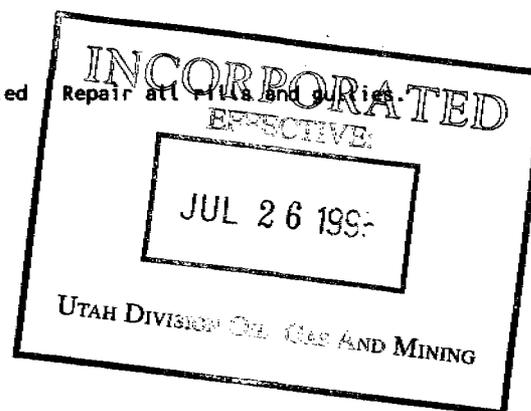
**NOTICES OF VIOLATION**

Date Issued	Number & Agency	Nature of Violation	Abatement Action Taken	Administrative Proceedings and Current Status
Aug. 24, 1994	N 94-41-3-1 UDOGM	Failure to design, locate, construct and maintain stable diversion.	<u>Actions Required:</u> 1. Submit plans addressing M&RP requirements for CGD-5 and the slope in Barn Canyon. 2. Implement plan.	Item 1 - Sept. 19, 1994, Extended to Oct. 17, 1994, Extended to Dec. 9, 1994 Requirement for CGD-5 plans deleted Aug. 24, 1994. Item 2 - Nov. 17, 1994 12/16/94 - VACATED
Aug. 30, 1994	N 94-41-4-1 UDOGM	Failure to design, locate, construct and maintain stable diversions. To minimize erosion and impacts to hydrologic balance.	<u>Actions Required:</u> 1. Submit plans addressing M&RP requirements for CGD-19 to pass runoff from 100-year, 6-hour event. 2. Implement plan. 3. Maintain CGD-7 (lower).	Item 1 - Sept. 30, 1994, Abatement action deleted 9/21/94 Item 2 - Oct. 31, 1994 Item 3 - Sept. 30, 1994 10/18/94 - VACATED

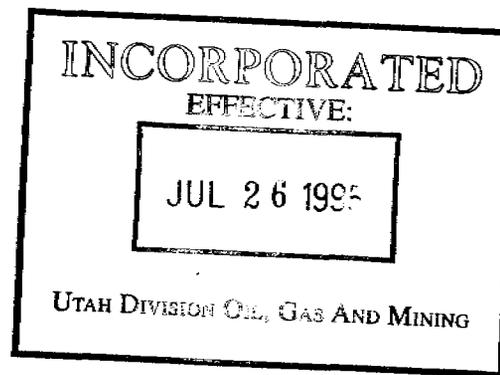
UDOGM = Utah Division of Oil, Gas and Mining  
 ACC = Amax Coal Company



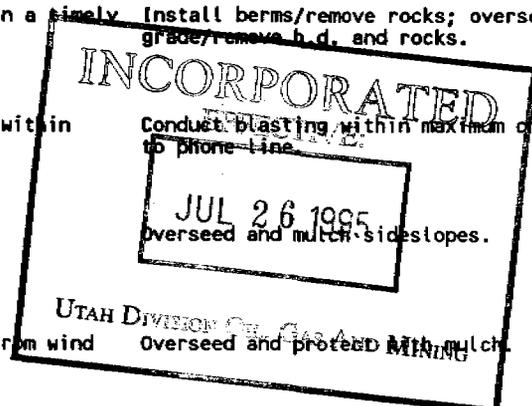
JV Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/28/91 V-DONR JV A-1652	AYRSHIRE S-00004 12-01031 /1973	Fugitive dust caused by blasting.	60 day offer to enter into Agreed Order setting forth action required.	Abatement Date: Pending
2/12/92 V-DONR JV N20212	AYRSHIRE S-00004 12-01031 /1973	Failure to conduct blasting so charge-weight is not exceeded at pipeline.	Conduct blasting operations within charge-weight limitations.	Abatement Date: 2/12/92 Terminated: 2/12/92
5/02/92 V-DONR JV N20602	AYRSHIRE S-00004 12-01031 /1973	Allowed rills and gullies on regraded, topsoiled areas.	Repair all gullies and rills.	Abatement Date: 7/01/92 Terminated: 7/01/92
4/27/93 V-DONR JV N30427	AYRSHIRE S-00004 12-01031 /1973	Failure to conduct blasting within maximum ground vibration limit.	Conduct blasting operations within ground vibration limits.	Abatement Date: 4/27/93 Terminated: 4/27/93
3/24/94 V-DONR JV N40324	AYRSHIRE S-00004 12-01031 /1973	Flyrock from the blasting site was cast beyond the boundary of the bonded area.	Pick up all flyrock west of the pit.	Abatement Date: 4/22/94 Terminated: 3/24/94
3/24/94 V-DONR JV N40324	AYRSHIRE S-00004 12-01031 /1973	Flyrock from blasting beyond bonded area.	Remove flyrock.	Abatement Date: 3/29/94 Terminated: 3/24/94
3/24/94 V-DONR JV N40324	AYRSHIRE S-00004 12-01031 /1973	Rills and Gullies have formed and disruptive to reestablishment of vegetation.	Repair all gullies on the permit.	Abatement Date: 9/19/94 Pending Request for 30 day extension on 11/18/94.
3/24/94 V-DONR JV N40324	AYRSHIRE S-00004 12-01031 /1973	Allowed rills and gullies on regraded, topsoiled areas.	Repair all rills and gullies.	Abatement Date: 12/13/94 Pending Request for 30 day extension on 8/18/94.



Issue Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/09/92 F-DOGM JV 92-28-1-1	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to construct/operate under approved plans/reqs. for sediment ponds.	Reconstruct pond spillways; submit as-built designs.	Abatement Date: Terminated: 4/24/92
1/07/92 F-DOGM JV 92-39-2-1	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to receive approval to gravity discharge from UT Fuel No. 1 Mine.	Stop discharging and/or submit plans to adequately handle discharge.	Abatement Date: 6/04/92 Terminated: 6/15/92
1/28/92 F-DOGM JV 92-39-3-2	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to maintain diversion and prevent sediment in stream flow.	Comply with design standards of approved plan.	Abatement Date: 6/26/92 Terminated: 7/07/92
5/15/92 F-DOGM JV 92-41-3-1	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to maintain diversion and construct road drainage control culvert.	Restore drop inlet; submit plans and designs describing inlet.	Abatement Date: 6/01/92 Terminated: 6/15/92
5/27/94 F-DOGM JV 94-41-2-2	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to control sediment and siltation structures; constructing impound structure without designs or approval; failure to follow installation sequence in plan; failure to conduct	Construct berm and Pond 17 and diversion structures; remove spoil; provide interim sediment control; cease reclamation activities.	Abatement Date: 7/05/94 Terminated: 8/16/94
3/12/94 F-DOGM JV 94-41-3-1	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to design, locate, construct and maintain diversion and minimize erosion.	Submit plan addressing requirements for diversion and implement as approved.	Abatement Date: 11/17/94 Pending
3/30/94 F-DOGM JV 94-41-4-1	CASTLE GATE ACT/007/004 42-00165 /1986	Failure to design, locate, construct and maintain diversions to be stable, minimize adverse impacts on hydrologic balance and erosion.	Submit plans for redesign; after approval implement designs; maintain diversion to conform with design.	Abatement Date: 10/31/94 Pending



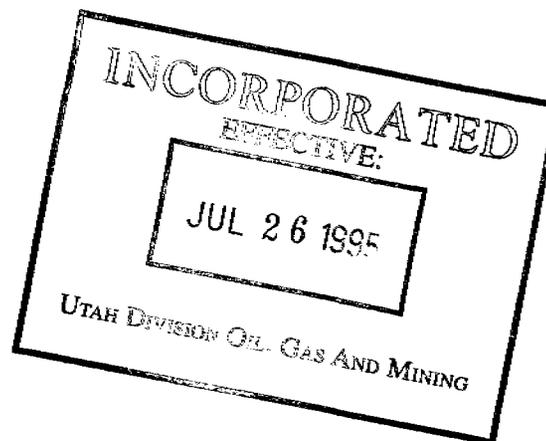
NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/05/93 IN-DONR NOV N30505	CHINOOK S-00039 12-00322 /1969	Failure to fill, grade or otherwise stabilize the rills and gullies on topsoil.	Fill, grade and stabilize rills and gullies; clean sediment basin.	Abatement Date: 7/19/93 Terminated: 7/19/93
5/28/93 IN-DONR NOV	CHINOOK S-00039 12-00322 /1969	Failure to fill and stablize rills and gullies.	Fill, regrade and stabilize rills and gullies.	Abatement Date: 11/01/93 Terminated: 11/02/93 Assessed: \$900
10/07/92 IN-DONR NOV N21007	CHINOOK S-00039 12-00322 /1969	Failure to conduct blasting within maximum particle velocity limits.	Conduct blasting within maximum peak particle velocity limits.	Abatement Date: 10/07/92 Terminated: 10/07/92
12/22/92 IN-DONR NOV N21222	CHINOOK S-00039 12-00322 /1969	Operator pumped Basin #10 resulting in off site iron precipitation/iron laden water.	Stop discharging and maintain sediment basin.	Abatement Date: 1/22/93 Terminated: 12/22/92 Assessed: \$900
5/28/93 IN-DONR NOV N30528	CHINOOK S-00039 12-00322 /1969	Failure to contemporaneously backfill and regrade.	Complete backfilling and regrading.	Abatement Date: 9/27/93 Terminated: 9/27/93 Assessed: \$1,200
9/03/93 IN-DONR NOV N30903	CHINOOK S-00039 12-00322 /1969	Failure to conduct blasting within maximum particle velocity limits.	Conduct blasting within maximum peak particle velocity limits.	Abatement Date: 9/03/93 Terminated: 9/03/93 Assessed: \$1,100
10/25/93 IN-DONR NOV N31025	CHINOOK S-00039 12-00322 /1969	Failure to restore all affected areas in a timely manner.	Install berms/remove rocks; overseed/final grade/remove b.d. and rocks.	Abatement Date: 2/16/94 Terminated: 2/17/94 Assessed: \$1,100
2/16/94 IN-DONR NOV N40216	CHINOOK S-00039 12-00322 /1969	Failure to conduct blasting operations within maximum charge weight at phone line.	Conduct blasting within maximum charge weight up to phone line.	Abatement Date: 2/16/94 Terminated: 2/16/94 Assessed: \$800
3/16/94 IN-DONR NOV N40316	CHINOOK S-00039 12-00322 /1969	Failure to maintain diversion ditch.	Overseed and mulch sideslopes.	Abatement Date: 5/18/94 Terminated: 6/16/94
3/16/94 IN-DONR NOV N40316	CHINOOK S-00039 12-00322 /1969	Failure to protect stockpiled topsoil from wind and water erosion.	Overseed and protect with mulch.	Abatement Date: 5/18/94 Terminated: 6/16/94
3/16/94 IN-DONR NOV N40316	CHINOOK S-00039 12-00322 /1969	Failure to remove topsoil prior to disturbance; Area modified 3/21/94.	Remove and stockpile topsoil/install straw dike.	Abatement Date: 5/18/94 Terminated: 6/16/94



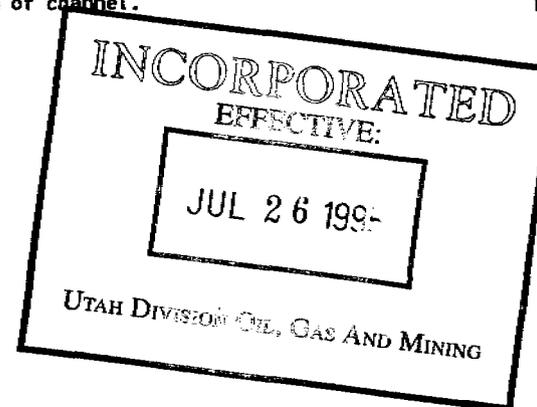
Violation Date Issuing Agency IV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/16/94 I-DONR IV N40316	CHINOOK S-00039 12-00322 /1969	Failure to submit and have approval plans for modification of impoundment.	Modify basin or submit new certified as-built designs.	Abatement Date: 5/18/94 Terminated: 6/16/94
3/01/94 I-DONR IV N41201	CHINOOK S-00039 12-00322 /1969	Failure to complete backfilling and grading of the overburden deposits within 180 days of deposition and achieve contemporaneous reclamation.	Complete the required backfilling and grading.	Abatement Date: 3/01/95 Terminated: 1/25/95 Assessed: \$1,100 Pd. 1/25/95
7/11/92 I-DONR IV N20911	CHINOOK S-00063 12-00322 /1969	Failure to operate and maintain silt structures.	Cease and/or treat effluent.	Abatement Date: 9/18/92 Terminated: 9/14/92
7/11/92 I-DONR IV N20911	CHINOOK S-00063 12-00322 /1969	Mining off of bounded area.	Conduct mining activities within bonded area.	Abatement Date: 10/01/92 Terminated: 10/05/92
1/25/93 I-DONR IV N31025	CHINOOK S-00063 12-00322 /1969	Failure to restore all affected areas in a timely manner.	Install berms, final grade and overseed.	Abatement Date: 5/02/94 Pending

**INCORPORATED**  
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 UTAH DIVISION OIL, GAS AND MINING

OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/23/92 L-DOMM OV 36-9-92	DELTA 208 11-00625 /1969	Failure to pass drainage from area through silt structure.	Redirect drainage to pass through sediment pond.	Abatement Date: 11/23/92 Terminated: 12/01/92
7/25/94 L-DOMM OV 1-1-94	DELTA 246 11-00625 /1969	Failure to obtain a seismograph recording of a blast on 6/30/94 at 1510 hours.	Make a seismograph recording of each blast when the square root scaled distance value is less than 65.	Abatement Date: 9/09/94 Terminated: 9/01/94
2/13/92 L-DOMM OV 36-1-92	DELTA 80 11-00625 /1969	Failure to dispose of coal mine waste in approved disposal area.	Remove slurry and reclaim area; seed and mulch; reinforce berms.	Abatement Date: 3/16/92 Terminated: 2/13/92
3/25/93 L-DOMM OV 36-1-93	DELTA 80 11-00625 /1969	Failure to dispose of coal mine waste in approved disposal area.	Remove slurry and reclaim area; seed and mulch repaired area.	Abatement Date: 4/23/93 Terminated: 4/19/93
3/26/94 L-DOMM OV 22-1-94	DELTA 83 11-00625 /1969	Failure to dispose of coal mine waste in approved disposal area.	Remove slurry and reclaim area (reestablish access lane, seed, lime and mulch affected area).	Abatement Date: 9/10/94 Pending



IV Date Issuing Agency IV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/30/93 I-DONR IV N30430	MINNEHAHA P-00005 12-00332 /1969	Failure to meet all applicable state and federal effluent limitations.	Cease discharge; dredge out sump and/or restart the pump.	Abatement Date: 5/04/93 Terminated: 5/03/93 Assessed: \$ Penalty Waived 6/28/93
2/16/93 I-DONR IV N31216	MINNEHAHA P-00005 12-00332 /1969	Failure to meet all applicable state and federal effluent limitations.	Cease discharge; revise drainage control plan to meet NPDES limits.	Abatement Date: 9/07/94 Terminated: 9/07/94 Assessed: \$1,600 Pd. 2/11/94
1/13/92 I-DONR IV N20113	MINNEHAHA S-00041 12-00332 /1969	Failure to certify sediment ponds after construction.	Certify the basins by a registered engineer.	Abatement Date: 2/12/92 Terminated: 1/13/92
1/13/92 I-DONR IV N20113	MINNEHAHA S-00041 12-00332 /1969	Failure to backfill and grade disturbed areas.	Submit and obtain approval for a revised post-mining land use change.	Abatement Date: 7/24/92 Terminated: 7/22/92
1/22/92 I-DONR IV N20122	MINNEHAHA S-00041 12-00332 /1969	Failure to conduct blasting operations within maximum ground vibration limits.	Conduct all blasting operations within proper ground vibration limits.	Abatement Date: 1/22/92 Terminated: 1/22/92 Assessed: \$700
1/02/92 I-DONR IV N20402	MINNEHAHA S-00256 12-00332 /1969	Failure to conduct blasting operations within maximum ground vibration limits.	Conduct all blasting operations within proper ground vibration limits.	Abatement Date: 4/02/92 Terminated: 4/07/92 Assessed: \$1,100 Pd. 5/15/92
7/22/92 I-DONR IV N20722	MINNEHAHA S-00256 12-00332 /1969	Failure to conduct blasting operations within maximum ground vibration limits.	Conduct all blasting operations within proper ground vibration limits.	Abatement Date: 7/22/92 Terminated: 7/22/92
7/24/93 I-DONR IV N30909	MINNEHAHA S-00256 12-00332 /1969	Failure to construct a diversion according to approved design plans.	Regrade the side slopes to a 2.5:1 slope down to bottom of channel.	Abatement Date: 11/08/93 Terminated: 10/29/93



VIOLATIONS ISSUED TO: AMAX COAL COMPANY / WABASH

DIVISION: MIDWEST

7

IV Date	Mine Name	Nature of Violation	Remedial Measures	Abatement Date
Issuing Agency	Permit Number			Violation Status
IV No.	MSHA ID/Date			Administrative Proceedings
7/23/94	WABASH	Exceeded suspended solids limits (145 mg/L).	Take necessary action to bring suspended solids into compliance with NPDES limits.	Abatement Date: 7/06/94
DOWN	158			Terminated: 6/28/94
IV 30-3-94	11-00877 /1973			

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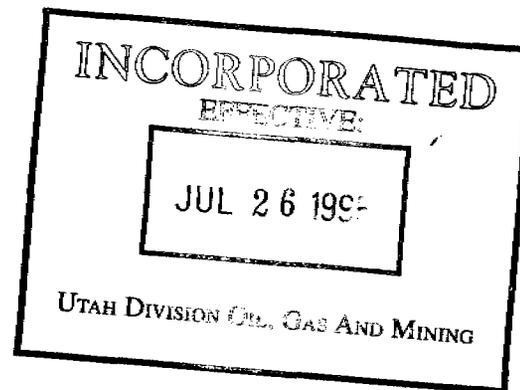
OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/03/92 Y-DEQ OV 100508	EAGLE BUTTE 428-T2 48-01078 /10/22/90	Failure to follow approved blasting plan.	Provide reasons for blasting after 5:00 pm.	Abatement Date: Terminated: 12/01/92
1/05/94 Y-DEQ OV 100523	EAGLE BUTTE 428-T2 48-01078 /10/22/90	Failure to republish/redistribute blasting public notice.	Republish the notice within 5 days and redistribute copies by mail.	Abatement Date: 1/10/94 Terminated: 1/21/94

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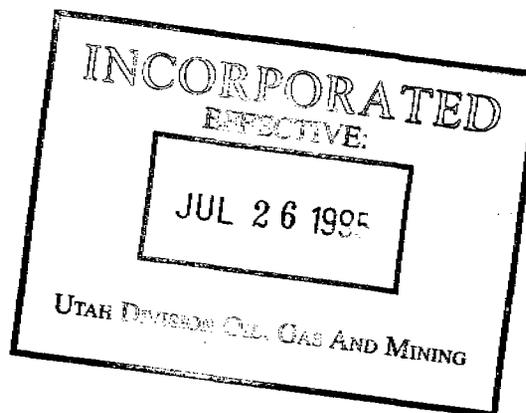
Violation Date	Mine Name	Nature of Violation	Remedial Measures	Abatement Date
Issuing Agency	Permit Number			Violation Status
Violation No.	MSHA ID/Date			Administrative Proceedings
9/27/94	PENNDIANA (to AMAX C	Failure to conduct blasting so as not to exceed	Conduct blasting operations within maximum ground	Abatement Date: 9/27/94
I-DONR	S-00256	maximum ground vibration; Failure to conduct	vibration limit; conduct preblast survey.	Terminated: 9/27/94
Violation No. N40927	12-02061 /1990	preblast survey within 1 mile of blast.		
1/15/94	PENNDIANA (to AMAX C	Failure to conduct blasting operations so that the	All blasting operations must be conducted in	Abatement Date: 1/13/95
I-DONR	S-00256	maximum ground vibration limit of 1.0 in./sec. is	compliance for a 1.0 in./sec. structure, for	Terminated: 1/20/95
Violation No. N41215	12-02061 /1990	not exceeded for a dwelling.	thirty days.	

**INCORPORATED**  
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 UTAH DIVISION OF OIL, GAS AND MINING

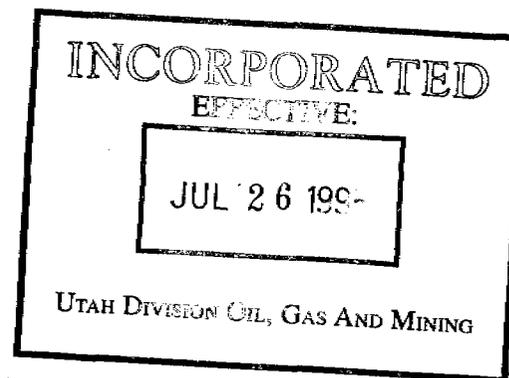
Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
7/14/94 -DOWR W 40414	BEECH S-00208 12-01991 /1988	Failure to stockpile soil material on a stable site and protect from water erosion.	Rework unstable area to prevent further erosion; seed/mulch to establish effective cover.	Abatement Date: 5/18/94 Pending
7/16/92 -DOWR W N20611	BEECH S-00208 12-01991 /1988	Failure to protect and stabilize surface area to control erosion.	Regrade to eliminate rills and gullies; mulch and establish vegetation.	Abatement Date: 7/13/92 Terminated: 7/13/92
7/28/92 -DOWR W N20928	BEECH S-00208 12-01991 /1988	Failure to protect and stabilize areas to control erosion.	Fill, regrade and stabilize rills and gullies; repair topsoil.	Abatement Date: 10/30/92 Terminated: 10/28/92 Assessed: \$500 Pd.
7/28/92 -DOWR W N20928	BEECH S-00208 12-01991 /1988	Failure to display and/or maintain signs and markers.	Post all signs and markers as necessary.	Abatement Date: 11/15/92 Terminated: 11/20/92
7/28/92 -DOWR W N20928	BEECH S-00208 12-01991 /1988	Failure to monitor ground water per approved permit.	Monitor ground water as per approved permit.	Abatement Date: 1/11/93 Terminated: 12/10/92
7/29/93 -DOWR W N30429	BEECH S-00208 12-01991 /1988	Failure to remove and segregate topsoil and comply with revegetation reqs.	Submit plan for soil deficit.	Abatement Date: 7/01/93 Terminated: 6/11/93 Assessed: \$1,500 Pd.
7/11/93 -DOWR W N30511	BEECH S-00208 12-01191 /1988	Failure to monitor groundwater as per the approved permit.	Collect samples and submit to Division.	Abatement Date: 6/11/93 Terminated: 6/11/93
7/13/93 -DOWR W N31213	BEECH S-00208 12-01991 /1988	Failure to protect and stabilize areas to control erosion.	Protect with mulch or riprap.	Abatement Date: 1/17/94 Terminated: 1/20/94



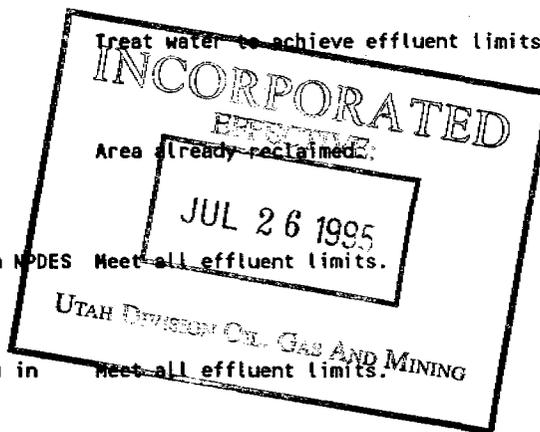
Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
12/01/92 I-DONR DV 21201	SYCAMORE S-00222 12-02063 /1990	Failure to conduct blasting operations within scale distance of phone cable.	Conduct blasting within scale distance of monitor vibrations.	Abatement Date: 12/01/92 Terminated: 12/01/92
10/26/94 I-DONR DV N41026	SYCAMORE (to Beech C) S-00222 12-02063 /1990	Failure to conduct blasing operations in areas not previously approved in blasting schedule.	Cease blasting operations and submit a revised blasting schedule for approval.	Abatement Date: Terminated: 10/26/94
10/26/94 I-DONR DV N41026	SYCAMORE (to Beech C) S-00222 12-02063 /1990	Failure to conspicuously mark or flag the immediate vicinity of charged holes.	Conduct all blasting operations under the direct supervision of a Certified Blaster.	Abatement Date: Terminated: 10/26/94
10/26/94 I-DONR DV N41026	SYCAMORE (to Beech C) S-00222 12-02063 /1990	Failure to conspicuously flag the immediate vicinity of charged holes.	Conspicuously flag or mark the immediate vicinity of charged holes.	Abatement Date: Terminated: 10/26/94 Assessed: 1,000 PD. 11/28/94



OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/17/92 Y-DSMRE OV 037472	PREPARATION PLANT 697-8005 15-11669 /10/5/79	Failure to cover refuse with 4 feet of non-toxic material	Cover refuse with proper material.	Abatement Date: 3/18/93 Terminated: 3/15/93
7/02/93 Y-DSMRE OV 037529	PREPARATION PLANT 697-8005 15-11669 /10/5/79	Rills and gullies in excess of 9" on embankment #04.	Grade slopes to eliminate rills and gullies.	Abatement Date: Terminated: 1/07/94
7/16/93 Y-DSMRE OV 037530	PREPARATION PLANT 697-8005 15-11669 /10/5/79	Failure to maintain access road to Dam 1 to meet design standards.	Repair road and ditches.	Abatement Date: Terminated: 9/02/93
8/02/93 Y-DSMRE OV 93081061005	PREPARATION PLANT 697-8005 15-11669 /10/5/79	Failure to cover coal refuse material with non-toxic material.	Contractor on site currently recovering refuse.	Abatement Date: 5/16/94 Terminated: 6/21/94
9/22/92 Y-DSMRE OV 037378	BULAN LOADOUT 897-6006 15-04442 /6/10/77	Allowed slides off access Road A-A.	Seed and mulch.	Abatement Date: 12/25/91 Terminated: 10/22/92
5/04/94 Y-DSMRE OV 038461	BULAN LOADOUT 897-6006 15-04442 /6/10/77	Discharge of total suspended solids exceeding effluent limitations guidelines.	Uncorrectable.	Abatement Date: 5/04/94 Terminated: 5/04/94  Uncorrectable.
1/14/94 Y-DSMRE OV 31-0259	BULAN LOADOUT 897-6006 15-04442 /6/10/77	Black water discharge; Total suspended solids 1108 mg/l.	Uncorrectable; discharge entered stream.	Abatement Date: Pending
1/14/94 Y-DSMRE OV 310259	BULAN LOADOUT 897-6006 15-04442 /6/10/77	Black water discharge at Bulan Loadout; Uncorrectable.	Uncorrectable	Abatement Date: 11/14/94 Terminated: 11/14/94



CV Date Issuing Agency CV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/26/93 V-DEP CV 4	BENTLEY S-2017-87 46-07204 /9/24/86	Failed to construct sediment control prior to disturbance in the watershed.	Complete construction of sediment ditch and certify.	Abatement Date: 6/26/93 Terminated: 6/26/93 Assessed: \$439 Pd. 1/06/94
4/29/94 V-DEP CV 5	BENTLEY S-2017-87 46-07204 /9/24/86	Failed to adequately guard blast area, i.e. Public Route 53 was not blocked during blasting operations.	Control traffic on County Route 53 during blasting operations, post warning signs as per 38-2-14.1(e)2.	Abatement Date: 5/02/94 Terminated: 5/02/94 Assessed: \$831 Pd. 8/25/94
4/29/94 V-DEP CV 6	BENTLEY S-2017-87 46-07204 /9/24/86	Cast fly rock off permit area.	Clean remaining rock & debris from County Route 53.	Abatement Date: 5/02/94 Terminated: 5/02/94 Assessed: \$800 Pd. 8/25/94
5/05/94 V-DEP CV 7	BENTLEY S-2017-87 46-07204 /9/24/86	Failed to properly construct drainage system in accordance with the approved pre-plan.	Construct diversions B & C in approved location, below all disturbed areas. Remove timber, debris, and windrowed material to approved location above diversion ditch. Seed mulch all disturbance.	Abatement Date: 9/15/94 Terminated: 9/15/94 Assessed: \$1,155 Pd. 8/25/94
5/05/94 V-DEP CV 8	BENTLEY S-2017-87 46-07204 /9/24/86	Failed to comply with permit conditions by not collecting and treating all seeps as outlined in the approved remining permit.	Submit and obtain approval for amended drainage plan and necessary NPDES modification for seepage sites 1 through 4. Construct collection system and treat to approved effluent limits.	Abatement Date: 8/02/94 Withdrawn
1/02/94 V-DEP CV 9	BENTLEY S-2017-87 46-07204 /9/24/86	Failed to seed and mulch all areas disturbed in the installation of the drainage system.	Seed and mulch sediment ditches A & B.	Abatement Date: 11/17/94 Terminated: 11/17/94
2/06/92 V-DEP CV 16	BENTLEY S-2020-86 46-07204 /9/24/86	Failed to meet effluent limits.	Treat water to achieve effluent limits.	Abatement Date: 2/06/92 Terminated: 2/06/92 Assessed: \$650 Pd. 5/04/92
2/26/92 V-DEP CV 17	BENTLEY S-2020-86 46-07204 /9/24/86	Failed to meet effluent limits.	Treat water to achieve effluent limits.	Abatement Date: 2/26/93 Terminated: 2/26/93 Vacated At Conference
2/26/93 V-DEP CV 18	BENTLEY S-2020-86 46-07204 /9/24/86	Distrubance off of bonded area.	Area already reclaimed.	Abatement Date: 2/26/93 Terminated: 2/26/93 Assessed: \$220 Pd. 4/19/93
1/04/93 V-DEP CV 19	BENTLEY S-2020-86 46-07204 /9/24/86	Failed to meet effluent limits set forth in NPDES permit.	Meet all effluent limits.	Abatement Date: 11/29/93 Terminated: 11/29/93 Assessed: \$419 Pd. 2/21/94
2/04/94 V-DEP CV 20	BENTLEY S-2020-86 46-07204 /9/24/86	Failed to meet effluent limits as set forth in NPDES Permit at outlet 002; pH 5.3, Mn 18.	Meet all effluent limits.	Abatement Date: 2/09/94 Terminated: 2/09/94 Assessed: \$1,006 Pd. 5/25/94



JV Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/15/92 I-DEP JV 17	BENTLEY S-2041-86 46-06367 /8/25/81	Failed to maintain drainage system.	Repair diversion ditches.	Abatement Date: 1/29/92 Terminated: 1/29/92 Assessed: \$400 Pd. 8/04/92
2/14/92 I-DEP JV 7	BENTLEY S-75-81 46-06367 /8/25/81	Failed to meet effluent limits.	Treat water to achieve compliance.	Abatement Date: 3/11/93 Terminated: 3/11/93 Assessed: \$450 Pd. 2/26/93

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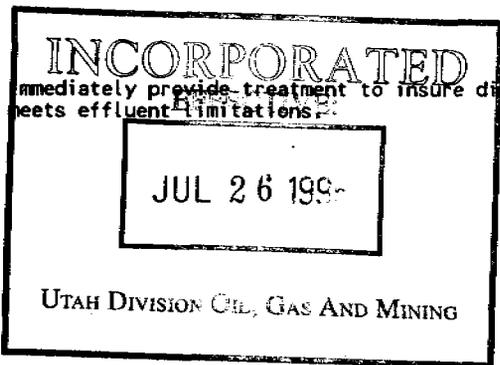
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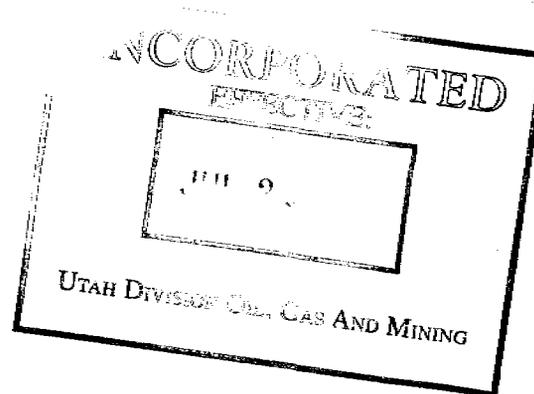
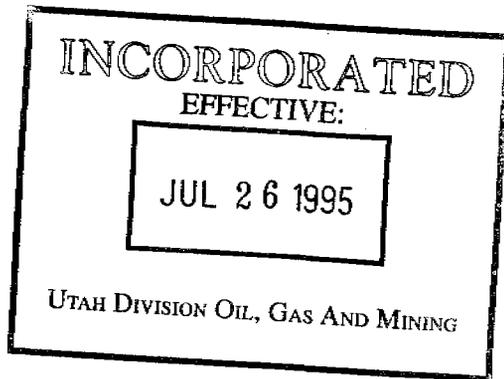
Issue Date	Mine Name	Nature of Violation	Remedial Measures	Abatement Date
Issuing Agency	Permit Number			Violation Status
W No.	MSHA ID/Date			Administrative Proceedings
5/20/93	ECKMAN PARK MINE 1&2	Failure to maintain pond capacity to treat	Reduce pond level adequately to ensure runoff not	Abatement Date: 6/30/93
D-DMG	C-81-071	10yr./24hr. runoff event.	at maximum levels.	Terminated: 8/20/93
W C-93-080	05-00302 /3/15/73			Assessed: \$500 Pd. 8/18/93
5/26/93	ECKMAN PARK MINE 1&2	Failure to construct/provide as built		Abatement Date:
D-DMG	C-81-071	certifications for impoundments.		Terminated: 9/10/93
W C-93-082	05-00302 /3/15/73			Assessed: \$250 Pd.
11/17/94	ECKMAN PARK MINE 1 &	Failure to monitor spoil springs as required by	Provide missing data; provide explanation why	Abatement Date: 11/30/94
D-DMG	C-81-071	the monitoring plan in the approved mine permit.	samples were missed or unreported.	Terminated: 12/07/94
W C-94-029	05-00302 /3/15/73			Assessed: \$1,250

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OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/14/94 Y-DSMRE OV 027784	NORTH VARILLA 407-0148 15-01969 /3/31/73	Two small slides off permit in Sugarcamp Branch.	Permit Slides and stabilize.	Abatement Date: 6/16/94 Terminated: 6/14/94
5/09/94 Y-DSMRE OV 210027	TOM FORK CONTOUR 807-0033 15-03320 /2/27/73	Slide on backfill area not covered under permit.	Direct water away from slide area; stabilize backfill; revegetate; bring off permit disturbance under permit.	Abatement Date: 11/09/94 Terminated: 11/30/94  Extension request submitted 10/31/94
5/28/93 Y-DSMRE OV 028037	JOB #7 807-0097 15-05358 /2/28/73	Off permit disturbance due to slide at Diversion D Abated. -4.		Abatement Date: Terminated:
3/23/94 Y-DSMRE OV 028108	JOB #7 807-0097 15-05358 /2/28/73	Slide off permit on Inc. #1 at norther end of diversion 04.	Permit slide and stablize.	Abatement Date: 4/22/94 Pending
3/23/94 Y-DSMRE OV 028108	JOB #7 807-0097 15-05358 /2/28/73	Off permit disturbance due to slide on increment #1.	Regrade, seed, mulch and otherwise stabilize and obtain revision to permit.	Abatement Date: 5/23/94 Terminated: 6/24/94
5/01/93 Y-DSMRE OV 027782	QUILLEN ISLAND 807-0230 15-01969 /3/31/73	Failure to minimize impacts to Crane's Creek.		Abatement Date: 7/01/93 Terminated: 7/01/93
3/17/93 Y-DSMRE OV 027783	QUILLEN ISLAND 807-0230 15-01969 /3/31/73	Failure to wait 30 days before blasting after residents were notified.	Uncorrectable.	Abatement Date: Terminated: 8/17/93
7/28/94 Y-DSMRE OV 210028	NO NAME 807-5053 15-05387 /5/10/79	Failure to construct fresh water diversion ditch.	Construct fresh water diversion ditch.	Abatement Date: 12/26/94 Pending  Extension request submitted 1/4/95
5/05/93 Y-DSMRE OV 037293	PINE MTN. WASHER 866-5047 15-15682 /7/15/86	Water Quality.	Uncorrectable.	Abatement Date: 5/07/93 Terminated: 5/07/93
5/01/94 Y-DSMRE OV 038044	PINE MOUNTAIN WASHER 866-5047 15-15682 /7/15/86	Discharge from Pond #11 exceeding effluent limitations.	Immediately provide treatment to insure discharge meets effluent limitations.	Abatement Date: 4/04/94 Terminated: 4/15/94



Date Issuing Agency / No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
/26/94 -DER (BMR) / 01-94	1-02831 /	Inadequate Certificate of Insurance.	Correct address for certificate holder and show proper name on certificate of insurance.	Abatement Date: 5/13/94 Terminated:
/10/93 -DER (BMR) / 01-93	CUMBERLAND MINE 30831303 36-05018 /6/7/93	Coal allowed in stream from raw coal pile.	Remove coal from stream.	Abatement Date: Terminated: 6/14/93
/08/93 -DER (BMR) / 02-93	CUMBERLAND MINE 30831303 36-05018 /6/7/93	E & S controls were not installed for GVBH site #29.3.	Install E & S controls.	Abatement Date: Terminated: 8/11/93
/14/94 -DER (BMR) / 02-94	CUMBERLAND MINE 30831303 36-05018 /6/7/93	Additional borehold information has not been provided as called for in the permit.	Provide required information.	Abatement Date: 6/08/94 Pending
/07/94 -DER (BMR) / 03-94	CUMBERLAND MINE 30831303 36-05018 /6/7/93	Small amount of oil spilled into Whiteley Creek and killed several small fish.	Spill was immediately cleaned up.	Abatement Date: Terminated: 7/07/94



JV Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/05/93 1-DER (BMR) JV 01-93	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Positive drainage was not maintained along haulroad ditches.	Ditches were cleaned.	Abatement Date: Terminated: 5/20/93
4/05/93 1-DER (BMR) JV 02-93	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Positive drainage was not maintained on bench & perimeter ditches.	Ditches and benches were regraded.	Abatement Date: Terminated: 5/20/93
3/21/94 1-DER (BMR) JV 02-94	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Combustible materials in the refuse disposal pile.	Remove materials.	Abatement Date: Terminated: 4/25/94
4/05/93 1-DER (BMR) JV 03-93	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Active refuse pile was not graded and compacted properly.	Pile was regraded and compacted.	Abatement Date: Terminated: 5/20/93
7/28/94 1-DER (BMR) JV 04-94	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Noncoal wastes were present on the refuse pile.	Materials were removed	Abatement Date: Terminated: 10/25/94
5/10/93 1-DER (BMR) JV 07-93	COAL REFUSE DISPOSAL 30753712 36-05466 /9/12/77	Adequate vegetation was not established on all slopes.	The slopes were reseeded.	Abatement Date: Terminated: 6/14/93
2/14/94 1-DER (BMR) JV 01-94	EMERALD #1 30841307 36-05466 /9/12/77	Six month subsidence maps were not submitted on time.	Submit Maps.	Abatement Date: Terminated: 3/01/94
5/17/94 1-DER (BMR) JV 03-94	EMERALD #1 30841307 36-05466 /9/12/77	Pollution forming materials were accumulating around drainage controls at the rotary breaker.	Materials were cleaned up.	Abatement Date: 6/17/94 Terminated 6/13/94
4/05/93 1-DER (BMR) JV 04-93	EMERALD #1 30841307 36-05466 /9/12/77	Ditches along the CC silo road were filled with sediment.	Ditches were cleaned.	Abatement Date: Terminated: 5/20/93
4/05/93 1-DER (BMR) JV 05-93	EMERALD #1 30841307 36-05466 /9/12/77	Water is ponding along the access road to the No. 2 Bleeder Shaft.	Cross drain was installed.	Abatement Date: Terminated: 5/20/93
7/28/94 1-DER (BMR) JV 05-94	EMERALD #1 30841307 36-05466 /9/12/77	Ditches along the CC silo road were filled with sediment.	Ditches were cleaned.	Abatement Date: Terminated: 10/25/94

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IOV Date Issuing Agency IOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/05/93 PA-DER (BMR) IOV 06-93	EMERALD #1 30841307 36-05466 /9/12/77	Slides at the No. 2 Bleeder Shaft need repaired.	Slides were repaired	Abatement Date: Terminated: 6/14/93
6/14/93 PA-DER (BMR) IOV 08-93	EMERALD #1 30841307 36-05466 /9/12/77	Pollution forming materials were found in Ten Mile Hay bales were placed in ditch. Creek.		Abatement Date: Terminated: 6/14/93

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NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/26/92 CO-DMG NOV C-92-26	EAGLE #5 C-81-044 05-01370 /5/4/72	Failure to maintain culvert and ditch around coal stockpile.	Culvert replaced and ditch cleaned.	Abatement Date: 8/26/92 Terminated: 8/26/92 Assessed: \$650 Pd.
3/22/94 CO-DMG NOV C-94-003	EAGLE #5 C-81-044 05-01370 /5/4/72	Operator failed to collect subsidence survey data for 4th quarter 1993.	Comply with Rule 2.05.6(6)(c)(i)(D) at least quarterly.	Abatement Date: Terminated: 3/31/94

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NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/07/92 CO-DMG NOV C-92-006	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to pass drainage from the disturbed area through sediment pond.	Correct drainage problem.	Abatement Date: 5/07/92 Terminated: 5/07/92 Assessed: \$300 Pd.
5/26/92 CO-DMG NOV C-92-007	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to maintain sediment pond outlet to comply with water quality standards.	Repair outlets	Abatement Date: 6/04/92 Terminated: 9/01/92
11/24/92 CO-DMG NOV C-92-035	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to protect topsoil from wind and water erosion.	Clean Coal finds from slope.	Abatement Date: 5/14/93 Terminated: 5/14/93 Assessed: \$1,300 Pd.
4/04/93 CO-DMG NOV C-93-030	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to protect off site areas from slides; failure to remove topsoil.	Strip topsoil; repair slide.	Abatement Date: 7/02/93 Terminated: 7/06/93 Assessed: \$600 Pd.
10/18/93 CO-DMG NOV C-93-142	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to prevent water pollution/dischage water to comply with regs.		Abatement Date: 11/08/93 Terminated: 11/10/93 Assessed: \$2,100 Pd.
11/10/93 CO-DMG NOV C-93-147	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to conduct hydrologic monitoring required by permit.		Abatement Date: 11/29/93 Terminated: 12/29/93 Assessed: \$1,650 Pd.
11/07/94 CO-DMG NOV C-94-032	ORCHARD VALLEY C-81-038 05-04184 /10/8/86	Failure to conduct hydrologic monitoring as required by permit.	Provide written documentation of all missing data; provide explanation why samples/site visits were not done.	Abatement Date: 1/15/95 Terminated: 11/16/94 pending



OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
9/16/94 T-DOGM OV 94-26-3-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Failure to inspect and/or maintain required records of impoundment inspections at the mine office.	Relates to past failures therefore no abatement measures required.	Abatement Date: 9/16/94 Terminated: 9/16/94
5/01/92 T-DOGM OV N92-26-2-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Failure to divert runoff from surface or refuse pile into channels.	Submit plan to construct ditch.	Abatement Date: Terminated: 7/28/92
1/12/92 T-DOGM OV N92-26-4-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Installed temporary coal processing equipment without permit.	Remove equipment from site.	Abatement Date: Terminated: 12/01/92
7/28/93 T-DOGM OV N93-25-4-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Failure to conduct operations according to plan (Ditch 74B).		Abatement Date: Terminated: 8/25/93 Assessed: \$100 Pd.
3/25/93 T-DOGM OV N93-26-1-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Failure to maintain diversions in ditches; culvert; headwall.		Abatement Date: Terminated: 4/29/93 Assessed: \$600 Pd.
8/30/93 T-DOGM OV N93-26-2-1	STAR POINT ACT/007/006 42-01171 /4/11/77	Failure to maintain diversions.	Clean diversions.	Abatement Date: Terminated: 9/27/93

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OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
2/09/93 A-DEP (BMR) OV	MONONGAHELA RES. MIN 30921301 36-08336 /	Failure to provide 6 month maps for mine.	Provide Maps.	Abatement Date: Terminated: 5/10/93

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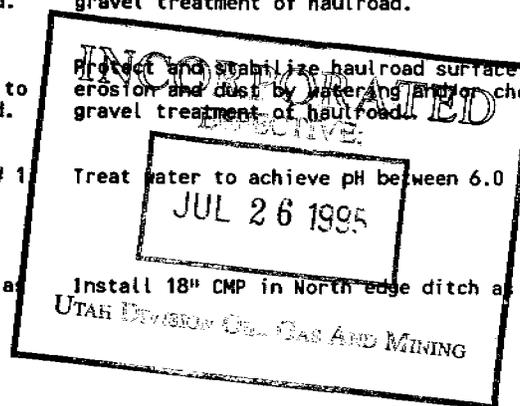
OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/16/93 Y-DEQ OV 100486	SHOSHONE 477-T2 48-01186 /6/7/78	Failure to protect topsoil storage area from coal runoff.	Remove coal; repair berm; test topsoil.	Abatement Date: Terminated: 4/16/93 Assessed: \$2,750 Pd.
1/18/94 Y-DEQ OV 100438	SHOSHONE 477-T3 48-01186 /6/7/78	Failure to adequately construct and maintain sediment control.	Repair and enlarge berm; file permit revision.	Abatement Date: Terminated: 2/07/94 Assessed: \$15,000 Penalty reduced from \$15,000.00 to \$0.00.
6/09/91 Y-DEQ OV 100440	SHOSHONE 477-T3 48-01186 /6/7/78	Failure to comply with Condition #2 of Change #2 of the approved permit by not obtaining approval of the Major Revision (TFN 2 5/340) by 6/1/94.	Obtain approval of Major Revision TFN 2 5/340, Condition #2 (90 days of receipt); Provide timely responses to LQD's comments (30 days); responde to all subsequent comments (15 days).	Abatement Date: Pending

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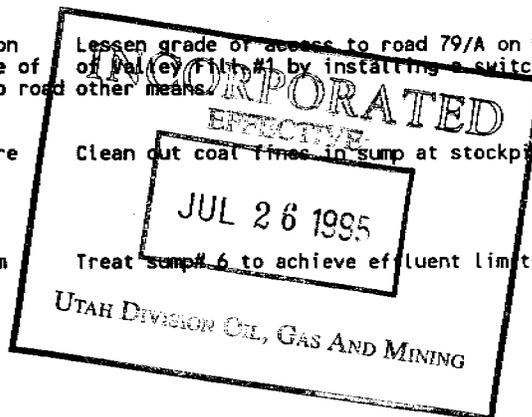
IOV Date Issuing Agency IOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
9/15/93 W-DEP IOV 2	INDIAN CREEK D-101-82 46-04747 /1975	Failure to renew inactive status prior to expiration.	Obtain approval for inactive status or reclaim area.	Abatement Date: 12/15/93 Terminated: 12/08/93 Assessed: \$140 Pd. 5/26/94
3/09/93 W-DEP IOV 9	INDIAN CREEK D-80-82 46-08091 /9/04/91	Failed to meet NPDES limits in discharge from Pond# 2.	Treat Pond# 2 to achieve effluent limits.	Abatement Date: 3/10/93 Terminated: 3/10/93 Assessed: \$894 Pd. 8/31/93
3/10/94 W-DEP IOV 10	INDIAN CREEK D-80-82 46-08091 /9/04/91	Failed to follow conditions set forth in NPDES permit by discharging raw mine water with a pH of 3.1 into Morgan Branch.	Immediately treat discharge at outlet 001 to ensure pH between 6 & 9 until repairs to outlet 001 can be made so that all raw mine water enters pipe as per plan & can't overflow to Morgan Br.	Abatement Date: 4/12/94 Terminated: 5/12/94 Assessed: \$900 Pd. 8/08/94
4/06/94 W-DEP IOV 11	INDIAN CREEK D-80-82 46-08091 /9/04/91	Failed to follow conditions set forth in NPDES permit by discharging raw mine water from outlet 001 into Morgan Branch with a pH below 6.0.	Immediately treat at outlet 001 to ensure pH between 6 & 9. Treatment underway.	Abatement Date: 4/06/94 Terminated: 4/06/94 Assessed: \$1,150 Pd. 8/08/94
5/17/94 W-DEP IOV 12	INDIAN CREEK D-80-82 46-08091 /9/04/91	Located fan opening west of main portal and a section of water pipe crossing Morgan Branch outside the permitted and bonded area.	Submit and gain approval of an I.B.R. to add all disturbed area acreage to the permit.	Abatement Date: 8/17/94 Terminated: 8/17/94 Assessed: \$340 Pd. 11/30/94
8/17/94 W-DEP IOV 13	INDIAN CREEK D-80-82 46-08091 /9/04/91	Failed to follow NPDES permit conditions by allowing discharge from outlet 001 with a pH less than 6.0.	Treat discharge to ensure a pH between 6.0 - 9.0.	Abatement Date: 8/18/94 Terminated: 8/18/94 Assessed: \$1,297 Pd. 11/30/94
5/09/94 W-DEP OV 5	INDIAN CREEK D-88-82 46-02061 /1972	Failed to maintain drainage ditch from Permanent Monument south to Pond #1.	Clean out ditchline and clean sediment from road surface.	Abatement Date: 5/17/94 Terminated: 5/17/94 Assessed: \$840 Pd. 9/29/94
4/28/94 W-DEP OV 3	INDIAN CREEK H-285 HAULROAD /N/A	Failed to control erosion and air pollution attendant to erosion in that operator failed to control dust from the surface of the haulroad.	Protect and stabilize haulroad surface to prevent erosion and dust by watering and/or chemical or gravel treatment of haulroad.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$665 Pd. 9/29/94
9/09/94 W-DEP OV 4	INDIAN CREEK H-285 HAULROAD /N/A	Failed to control erosion and air pollution attendant to erosion in that operator failed to control dust from the surface of the haulroad.	Protect and stabilize haulroad surface to prevent erosion and dust by watering and/or chemical or gravel treatment of haulroad.	Abatement Date: 9/15/94 Terminated: 9/15/94 Assessed: \$852 Conference Pending
7/23/92 W-DEP OV 21	INDIAN CREEK O-36-82 REFUSE /N/A	Failed to maintain effluent limits from Pond# 1 pH < 6.0.	Treat water to achieve pH between 6.0 - 9.0.	Abatement Date: 7/24/92 Terminated: 7/24/92
2/15/92 W-DEP OV 22	INDIAN CREEK O-36-82 REFUSE /N/A	Failed to properly maintain coal refuse area as per plan.	Install 18" CMP in North edge ditch as per plan.	Abatement Date: 12/30/92 Terminated: 12/29/92 Assessed: \$538 Pd. 8/31/93



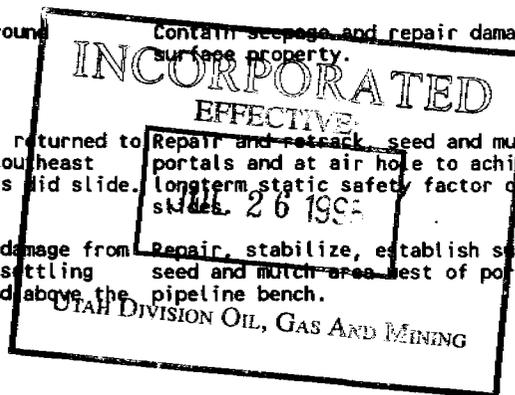
Violation Agency Date	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/09/93 -DEP V 22B	INDIAN CREEK 0-36-82 REFUSE /N/A	Failed to prevent contamination of refuse with combustible material.	Remove belt from refuse pile.	Abatement Date: 2/23/93 Terminated: 2/09/93 Assessed: \$340 Pd. 8/31/93
8/19/93 -DEP V 24	INDIAN CREEK 0-36-82 REFUSE /N/A	Failed to maintain diversion ditches around impoundment.	Dress-up eroded sections of ditches.	Abatement Date: 8/10/93 Terminated: 8/10/93 Assessed: \$1,454 Pd. 12/10/93
8/28/92 -DEP V 15	INDIAN CREEK 0-37-82 46-05992 /4/19/79	Failure to pass all runoff from the disturbed area through a sedimentation control structure.	Repair berm at Crooked Run.	Abatement Date: 9/15/92 Terminated: 9/15/92 Assessed: \$1,100 Pd. 5/26/94
8/15/92 -DEP V 16	INDIAN CREEK 0-37-82 46-05992 /4/19/79	Failed to clean sediment pond prior to exceeding 60% capacity.	Clean sediment from pond at silos and haul material away.	Abatement Date: 12/29/92 Terminated: 12/29/92 Assessed: \$538 Pd. 8/31/93
8/11/93 -DEP V 17	INDIAN CREEK 0-37-82 46-05992 /4/19/79	Failed to meet NPDES limits in discharge to Drawdy Creek.	Discharge was stopped during inspection.	Abatement Date: 3/11/93 Terminated: 3/11/93 Assessed: \$1,740 Pd. 8/31/93
8/11/93 -DEP V 18	INDIAN CREEK 0-37-82 46-05992 /4/19/79	Failed to prevent discharge of an oily slick to Drawdy Creek.	Discharge was stopped during inspection.	Abatement Date: 3/11/93 Terminated: 3/11/93  Vacated At Conference
8/24/93 -DEP V 2	INDIAN CREEK 0-52-82 SLURRY /N/A	Failed to maintain slurry line and access road.	Repair access road and slurry spill area and revegetate.	Abatement Date: 11/26/93 Terminated: 11/12/93 Assessed: \$701 Pd. 5/26/94
8/01/92 -DEP V 2	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failure to prevent material from traveling below the lowest coal seam being mined.	Recover material and reclaim area of downslope placement.	Abatement Date: 8/04/92 Terminated: 8/04/92 Assessed: \$1,411 Pd. 8/10/92
8/14/92 -DEP V 3	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failure to control or prevent road dust.	Install measures to control road dust.	Abatement Date: 5/29/92 Terminated: 5/29/92 Assessed: \$450 Pd. 8/31/93
8/14/92 -DEP V 4	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to install sediment control as per plan.	Install sediment ditches and pipes as per approved plan.	Abatement Date: 8/04/92 Terminated: 8/04/92 Assessed: \$1,000 Pd. 8/31/93
8/14/92 -DEP V 5	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to keep operation current with backfilling and regrading regulations.	Begin regrading in West Coalburg area.	Abatement Date: 5/29/92 Terminated: 5/29/92 Assessed: \$838 Pd. 8/31/93

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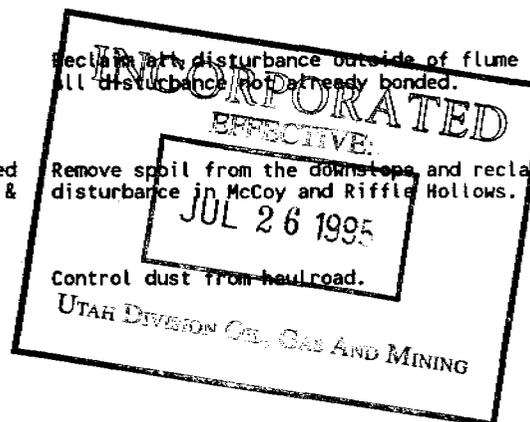
Violation Date	Mine Name	Nature of Violation	Remedial Measures	Abatement Date
Issuing Agency	Permit Number			Violation Status
Violation No.	MSHA ID/Date			Administrative Proceedings
1/06/93 I-DEP JV 5B	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to properly install sediment control structures.	Remove crushed 36" pipe and install a new one.	Abatement Date: 1/13/93 Terminated: 1/13/93 Assessed: \$540 Pd. 8/31/93
5/09/93 I-DEP JV 6	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to install sediment control as per approved plan.	Eliminate cut throughs and install sediment control for all areas.	Abatement Date: 6/29/93 Terminated: 6/29/93 Assessed: \$1,737 Pd. 8/31/93
5/20/93 I-DEP JV 7	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to prevent washouts at sediment ditches 8C and 9F.	Seed and mulch eroded areas.	Abatement Date: 7/29/93 Terminated: 7/29/93 Assessed: \$760 Pd. 12/10/93
5/21/93 I-DEP JV 8	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to maintain sediment ditch 3B to prevent seepage from Coalburg level down to Winifrede level.	Seal cracks in bottom of Coalburg ditch.	Abatement Date: Withdrawn
5/25/93 I-DEP JV 9	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to install and maintain sediment control on west end of permit area.	Seal surface cracks, install and maintain sediment control structure.	Abatement Date: 7/29/93 Terminated: 7/29/93 Assessed: \$800 Pd. 12/10/93
1/24/93 I-DEP JV 10	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to maintain sediment control structure.	Repair slough and extend pipe.	Abatement Date: 12/08/93 Terminated: 12/08/93 Assessed: \$1,294 Pd. 5/26/94
2/08/93 I-DEP JV 11	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to meet NPDES limits.	Treat discharge to achieve applicable effluent limits.	Abatement Date: 12/10/93 Terminated: 12/10/93 Assessed: \$1,188 Pd. 5/26/94
5/16/94 I-DEP JV 12	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to sufficiently compact and stabilize material used to backfill and eliminate highwall in that several minor slides and settling has occurred.	Repair, stabilize, seed and mulch all slides and eliminate all exposed highwall on both contour strip levels to ensure a 1.3 static safety factor.	Abatement Date: 10/19/94 Terminated: 10/20/94 Assessment vacated at conference
7/20/94 I-DEP JV 13	INDIAN CREEK S-79-84 46-08091 /9/04/91	Failed to restore land affected to a condition capable of supporting the uses it was capable of supporting prior to mining, in that access to road 79/A is too steep.	Lessen grade of access to road 79/A on West side of Valley Pit #1 by installing a switch back &/or other means.	Abatement Date: Withdrawn
5/14/92 I-DEP JV 6	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to clean out sediment control structure prior to exceeding 60% capacity.	Clean out coal fines in sump at stockpile area.	Vacated by Board of Review Abatement Date: 5/29/92 Terminated: 5/29/92 Assessed: \$60 Pd. 8/31/93
3/10/93 I-DEP JV 7	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to meet NPDES limits at discharge from sump# 6.	Treat sump# 6 to achieve effluent limits.	Abatement Date: 3/11/93 Terminated: 3/11/93 Assessed: \$1,107 Pd. 8/31/93



OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/06/93 V-DEP OV 8	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to cleanout sediment structures prior to exceeding 60% capacity.	Clean sumps at Additional Openings: 7 & 8 to 100% of design capacity.	Abatement Date: 4/20/93 Terminated: 4/20/93 Assessed: \$807 Pd. 8/31/93
7/08/93 V-DEP OV 9	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to prevent indiscriminate discarding of junk and litter.	Improve housekeeping and remove litter from mine site.	Abatement Date: 11/08/93 Terminated: 11/08/93 Assessed: \$1,393 Pd. 5/26/94
3/16/94 V-DEP OV 10	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to meet effluent limits set forth in the NPDES permit by discharging water from sump#6 (outlet 008) with a pH below 6.0 (5.3) into an unnamed tributary of Sandlick Creek.	Treat water prior to discharging to ensure a pH between 6.0 and 9.0.	Abatement Date: 3/17/94 Terminated: 3/17/94 Assessed: \$900 Pd. 8/08/94
3/16/94 V-DEP OV 11	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to maintain sediment control structures in that sump at coal stockpile at end of office wasn't cleaned out when accumulations reached 60% of design capacity. Sumps 6 & 7 also need repairs.	Clean out sump at coal stockpile to 100% of design capacity. Repair leak at sump#6. Restore sump#7 to original design & size according to approved plans.	Abatement Date: 7/09/94 Terminated: 6/28/94 Assessed: \$1,583 Pd. 8/08/94
3/16/94 V-DEP OV 12	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to protect off-site areas from damage in that a slide occurred at air hole #7 damaging off-site areas.	Pull back slide material from unnamed tributary of Sandlick Creek. Repair slide at backfill of air hole #7. Seed and mulch entire disturbed area.	Abatement Date: 7/09/94 Terminated: 6/28/94 Assessed: \$1,210 Pd. 8/08/94
5/09/94 V-DEP OV 13	INDIAN CREEK U-30-85 46-07282 /4/22/87	Failed to protect off-site areas from damage from a slide.	Repair off site damage and submit IBR to add disturbed area to the permit.	Abatement Date: 8/12/94 Terminated: 8/12/94 Assessed: \$1,060 Pd. 11/30/94
5/06/94 V-DEP OV 3	INDIAN CREEK U-43-85 46-08091 /9/04/91	Failed to construct sediment control structure according to approved plan and pass all runoff from disturbed area through the structure.	Construct pond and/or sediment ditches according to approved plan for disturbed area northwest end of permit and relocate NPDES outlet. Certify structure upon completion.	Abatement Date: 8/17/94 Terminated: 8/11/94 Assessment Waived at Conference
3/09/93 V-DEP OV 16	INDIAN CREEK UO-356 46-08091 /9/04/91	Failed to eliminate all highwalls during grading.	Eliminate highwall where settlement following grading exposed about 6' of highwall.	Abatement Date: 6/18/93 Terminated: 6/18/93 Assessed: \$90 Pd. 8/31/93
5/26/93 V-DEP OV 17	INDIAN CREEK UO-356 46-08091 /9/04/91	Failed to prevent seepage from underground workings.	Contain seepage and repair damage caused to surface property.	Abatement Date: 11/10/93 Terminated: 11/10/93 Assessed: \$500 Pd. 12/10/93
5/06/94 V-DEP OV 18	INDIAN CREEK UO-356 46-08091 /9/04/91	Failed to prevent slides in that spoil returned to and backfilled at mined out areas at southeast portals and at air hole west of portals and slide.	Repair and reback seed and mulch slides at portals and at air hole to achieve minimum longterm static safety factor of 1.3 and prevent slides.	Abatement Date: 6/09/94 Terminated: 6/09/94 Assessed: \$325 Pd. 9/29/94
5/06/94 V-DEP OV 19	INDIAN CREEK UO-356 46-08091 /9/04/91	Failed to protect off-site areas from damage from mining in that slumping, sliding, and settling occurred in area west of the portal and above the pipeline bench.	Repair, stabilize, establish surface drainage and seed and mulch area west of portal and above pipeline bench.	Abatement Date: 6/09/94 Terminated: 6/09/94 Assessment Waived at Conference



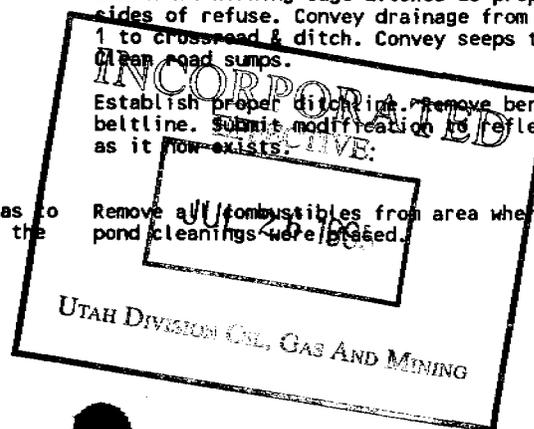
Issue Date	Mine Name	Nature of Violation	Remedial Measures	Administrative Proceedings
Issuing Agency	Permit Number			Violation Status
IV No.	MSHA ID/Date			
2/17/92 I-DEP IV 5C	KANAWHA 4-81 46-08110 /11/21/91	Failed to abate NOV# 4 in the specified timeframe.	Take necessary measures to bring pond# 4 into compliance.	Abatement Date: 2/18/92 Terminated: 2/18/92  Vacated At Conference
2/11/92 I-DEP IV 3	KANAWHA 4-81 46-08110 /11/21/91	Failed to submit quarterly Valley Fill inspection report for Valley Fill #3.	Submit certified inspection report for Valley Fill #3.	Abatement Date: 2/21/92 Terminated: 2/13/92 Assessed: \$476 Pd. 8/10/92
2/13/92 I-DEP IV 4	KANAWHA 4-81 46-08110 /11/21/91	Failed to meet effluent limits for suspended solids from pond #4.	Stop loggers from skidding in creek so as to comply with applicable effluent limits.	Abatement Date: 2/14/92 Terminated: 2/18/92 Assessed: \$1,300 Pd. 8/10/92
2/17/92 I-DEP IV 6	KANAWHA 4-81 46-08110 /11/21/91	Failed to prevent material from going over the natural downslope.	Recover/reclaim material that is downslope.	Abatement Date: 5/26/92 Terminated: 5/26/92 Assessed: \$1,421 Pd. 4/01/93
2/19/92 I-DEP IV 7	KANAWHA 4-81 46-08110 /11/21/91	Failed to keep backfilling and grading current in the area of the proposed dragline walkway.	Reclaim area so as to be in compliance with the regulations, or obtain a variance. Extended for permit review.	Abatement Date: 3/18/92 Terminated: 11/12/92 Assessed: \$1,331 Pd. 4/01/93
3/23/93 I-DEP IV 8	KANAWHA 4-81 46-08110 /11/21/91	Failure to control fugitive dust from haulroad.	Control dust from haulroad.	Abatement Date: 8/24/93 Terminated: 8/24/93 Assessed: \$525 Pd. 2/21/94
2/29/93 I-DEP IV 9	KANAWHA 4-81 46-08110 /11/21/91	Failure to pass all runoff from the disturbed area through a sediment structure.	Install temporary sediment control on the N.W. point.	Abatement Date: 10/29/93 Terminated: 10/29/93 Assessed: \$813 Pd. 2/21/94
1/12/93 I-DEP IV 10	KANAWHA 4-81 46-08110 /11/21/91	Placed spoil from a higher seam on the downslope in a multiple seam operation where the lower seam highwall does not intersect the upper seam outcrop.	Reclaim area of downslope placement on the northern side of Riffle Hollow above valley fill.	Abatement Date: 1/12/93 Terminated: 1/12/94 Assessed: \$1,114 Pd. 2/21/94
2/22/94 I-DEP IV 11	KANAWHA 4-81 46-08110 /11/21/91	Failed to protect offsite areas from damages caused by surface mining activities.	Reclaim any disturbance outside of flume area. IBR all disturbance not already bonded.	Abatement Date: 5/27/94 Terminated: 5/27/94 Assessed: \$1,050 Pd. 9/10/94
2/13/94 I-DEP IV 12	KANAWHA 4-81 46-08110 /11/21/91	Placed spoil on the downslope in an uncontrolled manner on slopes exceeding 20 degrees in McCoy & Riffle Hollows.	Remove spoil from the downslope and reclaim disturbance in McCoy and Riffle Hollows.	Abatement Date: 10/13/94 Terminated: 10/04/94 Assessed: \$1,052 Conference Pending
2/11/94 I-DEP IV 13	KANAWHA 4-81 46-08110 /11/21/91	Failed to control fugitive dust from haulroad.	Control dust from haulroad.	Abatement Date: 10/12/94 Terminated: 10/12/94 Assessed: \$1,106 Conference Pending



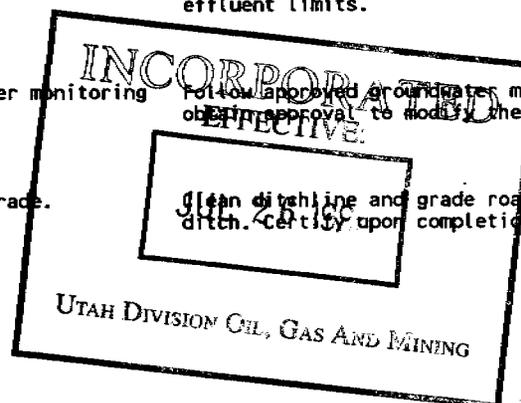
NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/24/94 WV-DEP NOV 18	KANAWHA 45-77 46-08110 /11/21/91	Failed to compact backfill to insure stability with a static safety factor of 1.3.	Repair slip areas at Fault Island where backfill has settled and where wall has been exposed.	Abatement Date: 6/27/94 Terminated: 6/27/94 Assessed: \$525 Pd. 10/30/94
3/21/94 WV-DEP NOV 26	KANAWHA 615-70C 46-08110 /11/21/91	Failed to clean out sediment control structure when sediment accumulation reached 60% of design capacity.	Clean Gabion #12 to restore 100% of design capacity.	Abatement Date: 5/21/94 Terminated: 5/25/94 Assessed: \$860 Pd. 9/10/94
4/13/94 WV-DEP NOV 27	KANAWHA 615-70C 46-08110 /11/21/91	Failed to clean out sediment control structure when sediment accumulation reached 60% of design capacity.	Clean Gabion #1 to restore 100% of design capacity.	Abatement Date: 5/27/94 Terminated: 5/27/94  Assessment waived at conference
4/13/94 WV-DEP NOV 28	KANAWHA 615-70C 46-08110 /11/21/91	Failed to sufficiently compact material used to backfill so as to insure stability with a static safety factor of 1.3.	Repair slip in sediment ditch north of valley fill #2.	Abatement Date: 5/13/94 Terminated: 5/03/94  Assessment waived at conference
4/19/94 WV-DEP NOV 29	KANAWHA 615-70C 46-08110 /11/21/91	Failed to perform haulroad maintenance so as to maintain minimum performance standards and requirements.	Clean accumulated sediment from sumps and repair relief culverts. Reestablish ditchlines and regrade surfaces.	Abatement Date: 5/31/94 Terminated: 5/27/94 Assessed: \$661 Pd. 9/10/94
5/06/94 WV-DEP NOV 30	KANAWHA 615-70C 46-08110 /11/21/91	Failed to follow groundwater monitoring plan as approved.	Implement approved groundwater monitoring plan.	Abatement Date: 6/13/94 Terminated: 6/13/94 Assessed: \$540 Pd. 10/30/94
5/06/94 WV-DEP NOV 31	KANAWHA 615-70C 46-08110 /11/21/91	Failed to backfill, compact, regrade in order to restore approximate original contour.	Eliminate highwall south of valley fill #3.	Abatement Date: 8/03/94 Terminated: 7/20/94  Assessment waived at conference
6/03/94 WV-DEP NOV 32	KANAWHA 615-70C 46-08110 /11/21/91	Failed to erect perimeter markers.	Erect perimeter markers.	Abatement Date: 9/03/94 Terminated: 9/06/94  Assessment waived at conference
6/03/94 WV-DEP NOV 33	KANAWHA 615-70C 46-08110 /11/21/91	Failed to minimize disturbance to the hydrologic balance in that seep discharge in violation of CSR-1-3.2(a) & (b) occurred.	Treat seep above gabion #5 to meet effluent limits	Abatement Date: 9/03/94 Withdrawn  Vacated By Board of Review
6/03/94 WV-DEP NOV 34	KANAWHA 615-70C 46-08110 /11/21/91	Failed to certify valley fills 2 & 3 upon completion.	Certify valley fills 2 & 3.	Abatement Date: 9/03/94 Terminated: 9/06/94  Assessment waived at conference

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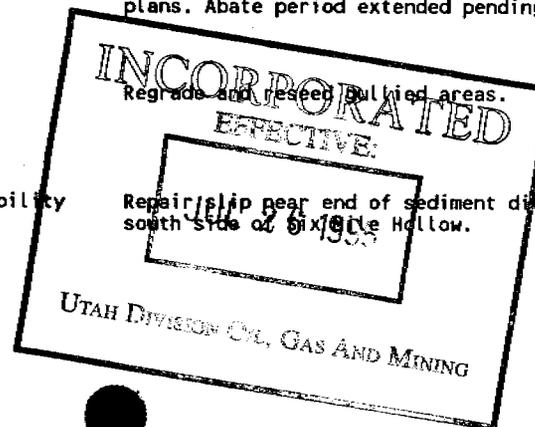
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12/12/92 DEP W 35	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to properly dispose of debris.	Dispose of debris properly.	Abatement Date: 3/18/92 Terminated: 3/18/92 Assessed: \$1,100 Pd. 8/10/92
12/12/92 DEP W 36	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to maintain road to meet the performance standards.	Remove and dispose of toxic material from the road north of SR 60.	Abatement Date: 3/18/92 Terminated: 3/18/92 Assessed: \$1,375 Pd. 4/01/93
1/21/93 DEP W 37	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to maintain approved drainage system.	Clean ponds 4 and 10 plus ditches 3 and 8.	Abatement Date: 10/22/93 Terminated: 10/22/93 Assessed: \$656 Pd. 2/21/94
1/28/94 DEP W 38	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to maintain approved drainage system.	Clean ponds #2, 7A & 20; sumps at sample auger & between sump #2 & pond 8; ditches 8 & 1; replace 24" cmp in pond 8.	Abatement Date: 3/28/94 Terminated: 3/29/94 Assessed: \$960 Pd. 8/12/94
1/28/94 DEP W 39	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to maintain effluent limitations. Discharged water with pH of 5.7.	Treat water to maintain effluent limits	Abatement Date: 2/02/94 Terminated: 2/02/94  Vacated At Conference
1/22/94 DEP W 40	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to protect offsite areas from damages caused by mining operations.	Clean all mud and black material from RT 60, truck acceleration lane, entrance to Dunn Hollow and bridge to prep plant.	Abatement Date: 2/23/94 Terminated: 2/23/94 Assessed: \$1,556 Conference Pending
1/29/94 DEP W 41	KANAWHA 0-75-82 46-03317 /3/20/73	Failed to minimize disturbance to the hydrologic balance.	Prevent discharge of black water from outlet 008.	Abatement Date: 11/30/94 Terminated: 11/30/94
1/29/93 DEP W 22	KANAWHA S-127-82 REFUSE /N/A	Failed to clean sediment structure prior to exceeding 60% capacity.	Clean pond# 2 to restore 100% design capacity.	Abatement Date: 12/29/93 Terminated: 1/12/94 Assessed: \$531 Pd. 2/21/94
1/02/94 DEP W 23	KANAWHA S-127-82 REFUSE /N/A	Failed to maintain a drainage control system as approved.	Construct working edge ditches as proposed on both sides of refuse. Convey drainage from 70-85 ditch 1 to crossroad & ditch. Convey seeps to pond. Clean road sumps.	Abatement Date: 5/02/94 Terminated: 5/03/94 Assessed: \$640 Pd. 8/12/94
1/29/94 DEP W 24	KANAWHA S-127-82 REFUSE /N/A	Failed to maintain a haulroad.	Establish proper ditch line. Remove berm next to beltline. Submit modification to reflect drainage as it now exists.	Abatement Date: 7/28/94 Terminated: 9/21/94 Assessed: \$1,100 Pd. 10/30/94
1/26/94 DEP W 25	KANAWHA S-127-82 REFUSE /N/A	Failed to place refuse in such a manner so as to prevent combustion; burying combustibles in the refuse.	Remove all combustibles from area where emergency pond cleanings were placed.	Abatement Date: 10/28/94 Terminated: 10/28/94



Violation Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/04/93 J-DEP JV 11	KANAWHA S-2-82 46-08110 /11/21/91	Failed to complete regrading within the time and distance limits.	Backfill and regrade the exposed highwall, fill and spoil areas.	Abatement Date: 9/21/93 Terminated: 9/21/93 Assessed: \$540 Pd. 8/31/93
5/04/93 J-DEP JV 12	KANAWHA S-2-82 46-08110 /11/21/91	Failed to follow the approved groundwater monitoring plan.	Follow approved plan or obtain approval for a modification of the plan.	Abatement Date: 6/11/93 Terminated: 6/11/93 Assessed: \$415 Pd. 8/31/93
2/15/94 J-DEP JV 13	KANAWHA S-2-82 46-08110 /11/21/91	Failed to maintain a haulroad.	Build up low areas with durable rock. Establish drainage to prevent pooling of water on road.	Abatement Date: 3/07/94 Terminated: 3/29/94 Assessed: \$800 Pd. 6/13/94
5/27/94 J-DEP JV 14	KANAWHA S-2-82 46-08110 /11/21/91	Failed to regrade, protect, and stabilize all disturbed areas in a manner which effectively controls erosion.	Install flume as discussed.	Abatement Date: 6/27/94 Terminated: 6/13/94 Assessed: \$625 Pd. 10/30/94
3/24/93 J-DEP JV 1	KANAWHA S-3037-90 46-07738 /8/10/89	Failed to pass all runoff from the disturbed area through a sediment control structure.	Seal cut through. Seed and mulch the silted area.	Abatement Date: 10/05/93 Terminated: 10/05/93 Assessed: \$806 Pd. 2/21/94
2/15/94 J-DEP JV 2	KANAWHA S-3037-90 46-07738 /8/10/89	Failed to keep operation current.	Finish reclaiming highwall from cove area near valley fill #1 to box cut near valley fill #2.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$844 Pd. 8/12/94
5/27/94 J-DEP JV 3	KANAWHA S-3037-90 46-07738 /8/10/89	Failed to pass all runoff through a sediment control structure.	Seal cut through.	Abatement Date: 6/01/94 Terminated: 6/03/94 Assessed: \$1,231 Pd. 10/30/94
2/12/94 J-DEP JV 4	KANAWHA S-3037-90 46-07738 /8/10/89	Placed spoil on downslope in an uncontrolled manner on slopes in excess of 20 degrees between Valley Fills # 1 & 2.	Remove spoil from the downslope and reclaim.	Abatement Date: 10/18/94 Terminated: 10/18/94 Assessed: \$1,006 Conference Pending
3/09/93 J-DEP JV 10	KANAWHA S-6-81 46-08110 /11/21/91	Failure to meet effluent limits for pond# 5.	Treat water in pond# 5 to achieve compliance with effluent limits.	Abatement Date: 3/11/93 Terminated: 3/11/93 Assessed: \$900 Pd. 12/15/93
3/09/93 J-DEP JV 11	KANAWHA S-6-81 46-08110 /11/21/91	Failed to follow approved groundwater monitoring plan.	Follow approved groundwater monitoring plan or obtain approval to modify the plan.	Abatement Date: 3/24/93 Terminated: 3/24/93 Assessed: \$328 Pd. 12/15/93
3/09/93 J-DEP JV 12	KANAWHA S-6-81 46-08110 /11/21/91	Failed to maintain road ditch and grade.	Clean ditch line and grade road surface to drain to ditch. Certify upon completion.	Abatement Date: 4/09/93 Terminated: 4/09/93 Assessed: \$725 Pd. 6/25/93



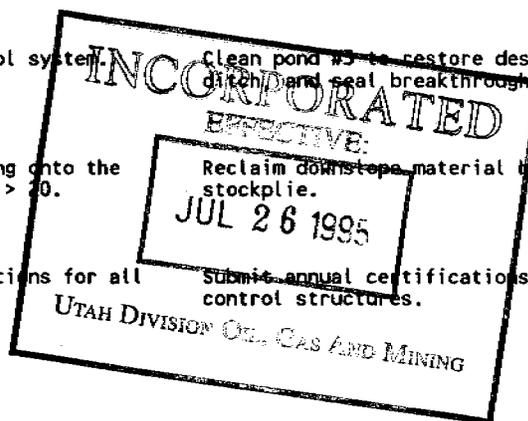
Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/13/94 V-DEP OV 13	KANAWHA S-6-81 46-08110 /11/21/91	Failed to maintain a haulroad.	Clean ditchline and sumps. Insure all culverts are operational. Build up road in low areas with durable material.	Abatement Date: 5/31/94 Terminated: 6/03/94 Assessed: \$469 Pd. 10/30/94
5/13/94 V-DEP OV 14	KANAWHA S-6-81 46-08110 /11/21/91	Failed to sufficiently compact material used to backfill so as to insure stability with a static safety factor of 1.3.	Stabilize and vegetate slide areas below sediment ditch #1.	Abatement Date: 8/13/94 Terminated: 7/22/94 Assessed: \$600 Pd. 10/30/94
2/12/92 V-DEP OV 25	KANAWHA S-6-84 46-08110 /11/21/91	Failed to maintain energy dissapator at discharge point; allowing discharge to cause erosion	Construct appropriate energy dissapator and repair and bond area disturbed by erosion.	Abatement Date: 5/26/92 Terminated: 5/26/92 Assessed: \$3,207 Conference Pending
2/24/92 V-DEP OV 26	KANAWHA S-6-84 46-08110 /11/21/91	Placed material over the natural downslope.	Remove spoil material from the downslope area.	Abatement Date: 5/26/92 Terminated: 5/26/92 Assessed: \$2,821 Conference Pending
7/01/92 V-DEP OV 27	KANAWHA S-6-84 46-08110 /11/21/91	Failed to meet effluent limits - settleable solids > 0.5 ml/L.	Maintain drainage system so as to meet applicable effluent limits.	Abatement Date: 7/02/92 Terminated: 7/02/92 Assessed: \$1,787 Pd. 3/15/93
6/22/93 V-DEP OV 28	KANAWHA S-6-84 46-08110 /11/21/91	Discharged water across slope causing erosion.	Regrade gullies, and reseed erosion areas.	Abatement Date: 7/06/93 Terminated: 7/06/93 Assessed: \$713 Pd. 9/30/93
7/29/93 V-DEP OV 29	KANAWHA S-6-84 46-08110 /11/21/91	Failed to regrade in a manner which effectively controls erosion.	Retrack and stabilize erosion gullies and erosion above Valley Fill #4.	Abatement Date: 10/05/93 Terminated: 10/05/93 Assessed: \$906 Pd. 2/21/94
7/29/93 V-DEP OV 30	KANAWHA S-6-84 46-08110 /11/21/91	Failed to establish a permanent vegetative cover.	Lime, seed, and mulch bare areas to establish adequate vegetative cover.	Abatement Date: 10/05/93 Terminated: 10/05/93 Vacated At Conference
7/29/93 V-DEP OV 31	KANAWHA S-6-84 46-08110 /11/21/91	Failed to construct Valley Fills 5 and 6 as per approved plans.	Construct Valley Fills 5 and 6 as per approved plans. Abate period extended pending plan review.	Abatement Date: 12/29/93 Terminated: 1/12/94 Vacated At Conference
8/24/93 V-DEP OV 32	KANAWHA S-6-84 46-08110 /11/21/91	Failed to prevent erosion.	Regrade and reseed bulged areas.	Abatement Date: 8/27/93 Terminated: 8/27/93 Assessed: \$1,013 Pd. 2/21/94
5/24/94 V-DEP OV 33	KANAWHA S-6-84 46-08110 /11/21/91	Failed to compact backfill to insure stability with a static safety factor of 1.3.	Repair slip near end of sediment ditch #17 on south side of Six Mile Hollow.	Abatement Date: 6/27/94 Terminated: 6/27/94 Assessed: \$1,025 Pd. 10/30/94



V Date suing Agency V No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
/30/92 -DEP V 11	KANAWHA S-6008-86 46-08110 /11/21/91	Failed to maintain sediment control system.	Repair sediment ditch #1.	Abatement Date: 10/29/92 Terminated: 10/29/92 Assessed: \$298 Pd. 4/01/93
/30/92 -DEP V 12	KANAWHA S-6008-86 46-08110 /11/21/91	Failed to backfill and regrade to eliminate highwalls.	Backfill and regrade to eliminate highwalls and revegetate the area.	Abatement Date: 3/11/93 Terminated: 3/11/93 Assessed: \$540 Pd. 4/01/93
/25/92 -DEP V 10	KANAWHA S-70-85 46-08110 /11/21/91	Failed to establish a vegetative cover adequate to prevent erosion.	Regrade eroded areas, and then revegetate in accordance with the approved plan,	Abatement Date: 5/26/92 Terminated: 5/26/92 Assessed: \$340 Pd. 8/10/92
/12/93 -DEP V 11	KANAWHA S-70-85 46-08110 /11/21/91	Failed to maintain drainage system.	Clean and maintain diversion ditch.	Abatement Date: 12/12/93 Terminated: 1/12/94 Assessed: \$744 Pd. 2/21/94
/02/94 -DEP V 12	KANAWHA S-70-85 46-08110 /11/21/91	Failed to maintain an approved drainage system.	Remove coal from sediment ditch #2. Clean sediment ditch #1 & establish ditch & outlet as per approved plan.	Abatement Date: 3/28/94 Terminated: 5/03/94 Assessed: \$960 Pd. 5/15/94
/02/94 -DEP V 13	KANAWHA S-70-85 46-08110 /11/21/91	Failed to protect offsite areas from damage from surface mining operations.	Reclaim slide area. IBR slide area using acreage not disturbed on S-70-85.	Abatement Date: 4/28/94 Terminated: 4/05/94 Assessed: \$860 Pd. 5/15/94
/02/93 -DEP V 29	KANAWHA S-78-85 46-08110 /11/21/91	Failed to protect offsite areas from slides.	Stabilize and reclaim offsite disturbance and permit and bond area.	Abatement Date: 7/02/93 Terminated: 7/02/93 Assessed: \$850 Pd. 8/31/93
/22/93 -DEP V 30	KANAWHA S-78-85 46-08110 /11/21/91	Failed to protect offsite areas from slides.	Stabilize and reclaim all disturbance to off site areas.	Abatement Date: 8/06/93 Terminated: 8/06/93 Assessed: \$240 Pd. 9/30/93
/29/93 -DEP V 31	KANAWHA S-78-85 46-08110 /11/21/91	Failed to establish permanent vegetative cover by the end of the second growing season.	Seed all areas of the permit where vegetation is sparse.	Abatement Date: 12/29/93 Terminated: 1/12/94 Assessed: \$360 Pd. 2/21/94
/22/94 -DEP V 32	KANAWHA S-78-85 46-08110 /11/21/91	Failed to protect offsite areas from damages caused by surface mining.	Reclaim slide area and submit IBR to cover disturbance not bonded.	Abatement Date: 3/22/94 Withdrawn 3/09/94
/12/92 -DEP V 36	KANAWHA S-88-83 46-08110 /11/21/91	Failed to submit quarterly Valley Fill Reports for Valley Fills 2 and 7 on ttime.	Submit certified inspection reports for Valley Fills 2 and 7	Abatement Date: 2/12/92 Terminated: 2/13/92 Assessed: \$276 Pd. 8/10/92

**INCORPORATED**  
EFFECTIVE:  
**JUL 26 1995**  
UTAH DIVISION OIL, GAS AND MINING

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/09/93 WV-DEP NOV 37	KANAWHA S-88-83 46-08110 /11/21/91	Failed to control fugitive dust from haulroad.	Control dust from haulroad.	Abatement Date: 8/09/93 Terminated: 8/09/93 Assessed: \$438 Pd. 9/30/93
9/29/93 WV-DEP NOV 38	KANAWHA S-88-83 46-08110 /11/21/91	Failed to establish a permanent vegetative cover by the end of the second growing season.	Seed all areas of the permit where the vegetation is sparse.	Abatement Date: 12/29/93 Terminated: 1/12/94 Assessed: \$240 Pd. 2/21/94
2/22/94 WV-DEP NOV 39	KANAWHA S-88-83 46-08110 /11/21/91	Failed to protect offsite areas from damages caused by surface mining activities.	Reclaim all slides and submit IBR to cover areas disturbed.	Abatement Date: 7/31/94 Terminated: 7/22/94 Assessed: \$600 Pd. 8/12/94
3/22/94 WV-DEP NOV 40	KANAWHA S-88-83 46-08110 /11/21/91	Failed to maintain an approved drainage system.	Clean sediment ditch #5C to 100% design capacity.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$806 Pd. 9/10/94
3/16/94 WV-DEP NOV 1	KANAWHA U-3042-91 46-06051 /9/11/79	Failed to install drainage system in accordance with approved pre-plan.	Install drainage in accordance with approved plan, or modify plan. Submit certification, seed and mulch all disturbance.	Abatement Date: 5/06/94 Terminated: 5/06/94 Assessed: \$574 Pd. 9/10/94
3/16/94 WV-DEP NOV 2	KANAWHA U-3042-91 46-06051 /9/11/79	Failed to install perimeter markers.	Install perimeter markers at additional openings 1 & 2.	Abatement Date: 4/16/94 Terminated: 3/25/94 Assessment Waived
2/25/94 WV-DEP NOV 13	KANAWHA U-55-84 46-01325 /1971	Failed to maintain discharge system.	Clean sumps 18, 19, & 20 and pond 5 to 100% design capacity. Establish outlet channel for sump # 20.	Abatement Date: 5/25/94 Terminated: 5/03/94 Assessed: \$1,211 Pd. 8/12/94
2/25/94 WV-DEP NOV 14	KANAWHA U-55-84 46-01325 /1971	Failed to meet effluent limitations. Outlet 001 pH Treat water to meet effluent limits. - 5.6, Outlet 029 iron 5.0 mg/l.		Abatement Date: 3/01/94 Withdrawn
6/24/92 WV-DEP NOV 20	KANAWHA UO-454 46-06051 /9/11/79	Failed to maintain sediment control system.	Clean pond #5 to restore design capacity, repair ditch and seal breakthrough.	Abatement Date: 8/11/92 Terminated: 8/11/92 Assessed: \$361 Pd. 9/01/92
6/24/92 WV-DEP NOV 21	KANAWHA UO-454 46-06051 /9/11/79	Failed to prevent coal from washing onto the downslope where the natural slope > 20.	Reclaim downslope material below the beltline and stockpile.	Abatement Date: 8/11/92 Terminated: 8/11/92 Assessed: \$674 Pd. 9/01/92
6/24/92 WV-DEP NOV 22	KANAWHA UO-454 46-06051 /9/11/79	Failed to submit annual certifications for all sediment control structures.	Submit annual certifications for all sediment control structures.	Abatement Date: 8/11/92 Terminated: 8/11/92 Assessed: \$460 Pd. 9/01/92



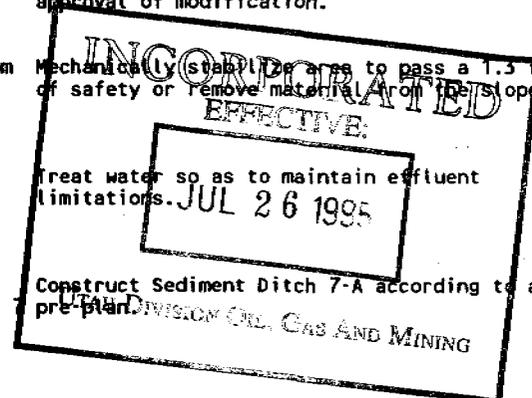
Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
7/24/92 -DEP V 23	KANAWHA UO-454 46-06051 /9/11/79	Failed to submit certification for Valley Fill at opening #17.	Submit a completed Valley Fill certification.	Abatement Date: 7/13/92 Terminated: 7/13/92 Assessed: \$527 Pd. 9/01/92
7/24/92 -DEP V 24	KANAWHA UO-454 46-06051 /9/11/79	Failed to submit quarterly groundwater monitoring and surface water monitoring reports.	Submit hydrologic monitoring reports as required by the approved plan.	Abatement Date: 8/11/92 Terminated: 8/11/92 Assessed: \$560 Pd. 9/01/92
7/24/92 -DEP V 25	KANAWHA UO-454 46-06051 /9/11/79	Failed to minimize disturbance to the hydrologic balance in an off site area.	Maintain drainage system to prevent off site damage.	Abatement Date: 7/02/92 Terminated: 7/02/92 Assessed: \$1,569 Pd. 9/01/92
7/30/94 -DEP V 26	KANAWHA UO-454 46-06051 /9/11/79	Failed to protect off-site areas from damage caused by mining activities.	Reclaim slide area and seed. Remove spoil from around pond #3 and cover coal on outslope. Submit IBR with next revision.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$490 Pd. 9/10/94
7/30/94 -DEP V 27	KANAWHA UO-454 46-06051 /9/11/79	Failed to maintain an approved drainage system.	Clean pond #3 to 100% design capacity. Recouple separated pipe outlet of pond #3.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$513 Pd. 9/10/94
7/30/94 -DEP V 28	KANAWHA UO-454 46-06051 /9/11/79	Failed to maintain an approved access road.	Clean slides from road ditch and reestablish ditchline. Clean sump below outslope of old coal stockpile.	Abatement Date: 5/03/94 Terminated: 5/03/94 Assessed: \$1,006 Pd. 9/10/94
7/03/94 -DEP V 29	KANAWHA UO-454 46-06051 /9/11/79	Failed to maintain an approved drainage system.	Reinstall tee on inlet of discharge 001 and seal leak in pond.	Abatement Date: 7/03/94 Terminated: 6/30/94 Assessed: \$597 Pd. 10/30/94

Violation Date Issuing Agency IV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
7/28/94 -DEP IV 1	POCAHONTAS D-63-82 46-01403 /1971	Failure to reclaim entire mine site within 180 days after completion of mining.	Remove equipment at pump sites 1 & 2 and reclaim areas including grouting of bore holes.	Abatement Date: 4/15/94 Terminated: 5/02/94  Assessment waived at Conference.
1/05/92 -DEP IV 6	POCAHONTAS O-79-82 46-03303 /3/19/73	Failed to maintain effluent limitations.	Maintain drainage system so as to meet effluent limits.	Abatement Date: 11/06/92 Terminated: 11/06/92 Assessed: \$926 Pd. 3/27/93
1/05/92 -DEP IV 7	POCAHONTAS O-79-82 46-03303 /3/19/73	Failed to maintain haulroad.	Maintain haulroad system.	Abatement Date: 11/06/92 Terminated: 11/06/92 Assessed: \$800 Pd. 6/25/93
1/14/93 -DEP IV 8	POCAHONTAS O-79-82 46-03303 /3/19/73	Failed to keep reclamation current on the refuse pile.	Complete reclamation of the third lift of the refuse pile.	Abatement Date: 7/28/93 Terminated: 7/28/93 Assessed: \$397 Pd. 1/17/94
1/22/93 -DEP IV 9	POCAHONTAS O-79-82 46-03303 /3/19/73	Failed to meet effluent limits.	Maintain drainage system so as to meet limits.	Abatement Date: 9/23/93 Terminated: 9/23/93 Assessed: \$1,369 Pd. 5/26/94
1/18/92 -DEP IV 1	POCAHONTAS UO-199 46-01403 /1971	Operated outside of the bonded area.	Reclaim area outside the bonded area.	Abatement Date: 9/18/92 Terminated: 9/18/92 Assessed: \$60 Pd. 6/25/93



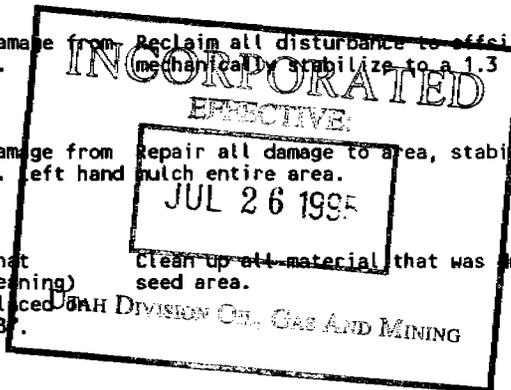
Violation Agency No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
7/02/92 W-DEP W 9	PAINT CREEK HAUL ROA 21-81 46-07058 /4/10/89	Failed to erect and/or maintain a permanent monument and perimeter markers at locations shown in the pre-plan on the proposal map.	Erect permanent monument and perimeter markers at locations shown on the proposal map.	Abatement Date: 7/10/92 Terminated: 6/25/92 Assessed: \$170 Pd.
7/02/92 W-DEP W 10	PAINT CREEK HAUL ROA 21-81 46-07058 /4/10/89	Failed to certify the sediment control structures in drainage area D.	Certify the sediment control structures in drainage area D.	Abatement Date: 7/10/92 Terminated: 7/08/92 Assessed: \$270 Pd.
7/02/92 W-DEP W 11	PAINT CREEK HAUL ROA 21-81 46-07058 /4/10/89	Failed to maintain the drainage control system.	Clean ditches and sumps where necessary to insure that the drainage system is functioning properly.	Abatement Date: 7/10/92 Terminated: 6/22/93 Assessed: \$2,375 Pd.
7/03/92 W-DEP W 12	PAINT CREEK HAUL ROA 21-81 46-07058 /4/10/89	Failed to submit surface water monitoring reports.	Submit surface water monitoring reports.	Abatement Date: 7/10/92 Terminated: 7/27/92 Assessed: \$470 Pd.
7/21/94 W-DEP W 2	PATRICK No. 8 UNDERG D-25-81 N/A (ABAN/	Failed to maintain haulroad surface, ditchline & sumps.	Grade haulroad surface, clean ditchline & sumps.	Abatement Date: 8/22/94 Terminated: 8/22/94 Assessed: \$577 Pd. 11/14/94
7/02/93 W-DEP W 3C	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to abate NOV 2 in the timeframe specified.	Complete the required actions to abate NOV 2.	Abatement Date: 2/05/93 Withdrawn
7/13/93 W-DEP W 1	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to properly maintain approved drainage system.	Properly maintain drainage system. Clean all ditches and sumps. Repair all culverts and stand pipes that need repair.	Abatement Date: 2/02/93 Terminated: 1/22/93 Assessed: \$298 Pd.
7/13/93 W-DEP W 2	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to protect off-site areas from damage from surface mining operations.	Pick-up slide material. Reestablish and rock rip-rap drainway. Seed all disturbance and mulch. Modified to CO #3C.	Abatement Date: 2/02/93 Terminated: 2/04/93 Assessed: \$569 Pd.
7/05/93 W-DEP W 3	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to properly construct sediment system in accordance with the approved pre-plan.	Modify permit to match existing ground conditions. Submit certifications upon approval of modifications.	Abatement Date: 4/09/93 Withdrawn
7/26/93 W-DEP W 5	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to submit an annual application for permit renewal at least 120 days prior to the expiration of the valid permit.	Submit application for renewal and all required attachments.	Abatement Date: 9/24/93 Terminated: 9/24/93  Assessment Waived
7/17/94 W-DEP W 6	PAINT CREEK HAUL ROA H-25 46-07058 /4/10/89	Failed to protect offsite areas from damage from slides during surface mining operations.	Repair and reclaim all disturbances and damage to off site area. Stabilize, seed, and mulch slide area.	Abatement Date: 4/14/94 Terminated: 5/13/94 Assessed: \$520 Pd. 7/07/94

Violation Date Violating Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/05/93 -DEP V 4	STOCKTON HAUL ROAD H-667 46-07058 /4/10/89	Failed to protect off-site areas from damage during surface mining operations.	Stabilize and reclaim all disturbance to off-site areas.	Abatement Date: 2/02/93 Terminated: 2/02/93 Assessed: \$406 Pd.
5/15/94 -DEP V 5	STOCKTON HAUL ROAD H-667 46-07058 /4/10/89	Failed to properly maintain haulroad, ditches and sumps.	Regrade haulroad, clean ditchline so as to reestablish ditchline and clean all sumps.	Abatement Date: 5/13/94 Terminated: 5/13/94 Assessed: \$630 Pd. 8/06/94
5/15/94 -DEP V 6	STOCKTON HAUL ROAD H-667 46-07058 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Haulroad berm failed.	Reclaim all disturbance to off-site areas and mechanically stabilize area to pass a 1.3 factor of safety.	Abatement Date: 5/13/94 Terminated: 5/13/94 Assessed: \$660 Pd. 8/06/94
11/11/93 -APPC V 93-R13-9	EAGLE BARGE FACILITY I-686 46-03115 /4/10/89	Failed to obtain a valid permit to construct or modify the subject facility and failure to control fugitive dust emissions.	Obtain necessary permit and operate facility in compliance with Regulation 5.	Abatement Date: 1/21/94 Terminated: 1/21/94 Assessed: \$3,000 Pd.
9/09/92 -DEP V 3	STOVER REFUSE AREA O-48-85 46-05145 /4/10/89	Failed to maintain the diversion ditch.	Repair breaches in east and west ditches and clean both ditches to 100% design capacity and reseed ditches when complete.	Abatement Date: 6/01/92 Terminated: 5/28/92 Assessed: \$1,424 Conference Pending
8/08/94 -DEP V 4	STOVER REFUSE AREA O-48-85 46-05145 /4/10/89	Failed to maintain diversion ditches.	Remove debris from diversion ditches and seed ditches.	Abatement Date: 5/06/94 Terminated: 5/06/94 Assessed: \$490 Pd. 7/05/94
8/08/94 -DEP V 5	STOVER REFUSE AREA O-48-85 46-05145 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Access road.	Reclaim all disturbance to off-site areas and mechanically stabilize area.	Abatement Date: 6/06/94 Terminated: 6/06/94 Assessed: \$450 Pd. 8/06/94
5/05/93 -DEP V 2	SYCAMORE NORTH HAUL O-6022-89 46-07058 /4/10/89	Failed to follow permit conditions in that haulroad certification does not conform to approved permit.	Submit a permit modification to conform to existing haulroad. Submit certification upon approval of modification.	Abatement Date: 5/28/93 Withdrawn
12/12/93 -DEP V 3	SYCAMORE NORTH HAUL O-6022-89 46-07058 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations.	Mechanically stabilize areas to pass a 1.3 factor of safety or remove material from the slope.	Abatement Date: 4/09/93 Terminated: 4/09/93 Assessed: \$450 Pd.
1/14/94 -DEP V 4	SYCAMORE NORTH HAUL O-6022-89 46-07058 /4/10/89	Failed to maintain effluent limitations as set forth in the NPDES program or other applicable water quality standards from sump #33.	Treat water so as to maintain effluent limitations.	Abatement Date: 10/14/94 Terminated: 10/14/94 Assessed: \$1,172 Conference Pending
1/17/93 -DEP V 11	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to construct a drainage system prior to commencement of surface mining operations. Ditch -A.	Construct Sediment Ditch 7-A according to approved plan.	Abatement Date: 8/31/93 Withdrawn



IOV Date Issuing Agency IOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/17/93 JV-DEP IOV 12	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to certify that the drainage system was constructed and installed according to the approved pre-plan.	Certify Sediment Ditch 7-A.	Abatement Date: 8/31/93 Terminated: 8/20/93 Assessed: \$572 Pd.
8/17/93 JV-DEP IOV 13	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to properly maintain haulroad surface and ditchlines.	Properly maintain haulroad surface and ditchline.	Abatement Date: 8/31/93 Withdrawn
1/11/94 JV-DEP IOV 14	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to sufficiently compact material used to backfill so as to insure stability with a static safety factor of 1.3. Drainage area 5.	Properly compact and stabilize all backfill material to achieve a static safety factor of 1.3 and repair all damage caused by failure of the backstack.	Abatement Date: 5/06/94 Terminated: 5/06/94 Assessed: \$500 Conference Pending
3/07/94 JV-DEP IOV 15	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to maintain effluent limitations as set forth in the NPDES program or other applicable water quality standards - Outlet 021: pH = 5.2.	Treat discharge from outlet 021 so as to maintain effluent limitations.	Abatement Date: 3/08/94 Terminated: 3/08/94 Assessed: \$638 Pd. 7/07/94
10/18/94 JV-DEP IOV 16	HUFFMAN NORTH S-3019-86 46-07058 /4/10/89	Failed to sufficiently compact material used to backfill so as to prevent slides. Drainage area #3.	Repair all damage, gullies and slide material. Seed and mulch complete slide area.	Abatement Date: 11/18/94 Terminated: 11/18/94
12/29/92 JV-DEP IOV 4	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to certify and submit annual inspections for Stream Crossing #1, and Sediment Ditches 5, 6, 7, & 8.	Submit certifications and annual inspection reports for Stream Crossing #1 and Sediment Ditches 5, 6, 7, & 8.	Abatement Date: 3/26/93 Terminated: 3/26/93 Assessed: \$361 Pd.
5/13/93 JV-DEP IOV 5	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to follow approved pre-plan in that Stream Crossing #1 was constructed outside the bonded area.	Submit a permit modification in order to bond Stream Crossing #1.	Abatement Date: 6/22/93 Terminated: 6/22/93  Assessment Waived
5/13/93 JV-DEP IOV 6	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Conducted surface mining outside of the permitted area.	Submit a permit modification in order to bond area that was mined outside the permitted area.	Abatement Date: 6/22/93 Terminated: 6/22/93 Assessed: \$360 Pd.
8/17/93 JV-DEP IOV 7	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to properly maintain haulroad surface and ditchline.	Properly maintain haulroad surface and ditchline.	Abatement Date: 8/31/93 Terminated: 8/20/93 Assessed: \$1,019 Pd.
2/22/94 JV-DEP IOV 8	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to maintain effluent limitations as set forth in the NPDES program. Outlet 006 discharge Iron - 7.5mg/l.	Treat discharge from outlet 006 so as to maintain effluent limits.	Abatement Date: 2/25/94 Terminated: 2/25/94 Assessed: \$790 Pd. 6/18/94
2/22/94 JV-DEP IOV 9	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to maintain stream crossing No. 1 on haulroad.	Repair damage to stream crossing No. 1 or remove all material from stream.	Abatement Date: 3/24/94 Terminated: 3/07/94 Assessed: \$1,030 Pd. 7/07/94

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
2/22/94 WV-DEP NOV 10	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to protect off-site areas from slides during surface mining operations.	Repair all slide areas. Remove downslope material. Mechanically stabilize to a 1.3 safety factor. Seed, mulch, & fertilize all disturbance.	Abatement Date: 4/25/94 Terminated: 4/25/94 Assessed: \$1,060 Pd. 7/07/94
5/19/94 WV-DEP NOV 11	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to submit annual certifications for ditches 3, 4, 5, 6, 7 & 8.	Submit annual certifications for all ditches.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$840 Pd. 10/07/94
5/19/94 WV-DEP NOV 12	HUFFMAN SOUTH S-3031-88 46-07058 /4/10/89	Failed to submit annual certifications for stream crossing #1 & haulroad.	Submit annual certifications for stream crossing #1 & haulroad.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$660 Pd. 10/07/94
2/27/92 WV-DEP NOV 5	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to maintain sediment control system.	Clean the sump and ditch and unclog the culvert pipe where water is standing on the 2 Gas Bench.	Abatement Date: 3/15/92 Terminated: 3/13/92 Assessed: \$1,062 Conference Pending
2/27/92 WV-DEP NOV 6	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to certify drainage system	Certify the drainage system.	Abatement Date: 5/08/92 Terminated: 5/08/92 Assessed: \$360 Conference Pending
5/21/93 WV-DEP NOV 7	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to maintain effluent limitations as set forth in the NPDES program. Sediment Ditch G-30: pH 4.8 & Iron 4.5	Treat all water so as to maintain effluent limitations for pH and iron.	Abatement Date: 5/21/93 Terminated: 5/21/93 Assessed: \$752 Pd.
6/11/93 WV-DEP NOV 8	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to maintain approved drainage system. Embankment of sediment ditch in Area G-51 & G-57 broken and slid downhill.	Properly maintain drainage system. Repair embankment in Area G-51 & G-57.	Abatement Date: 7/09/93 Terminated: 6/24/93 Assessed: \$450 Pd.
6/11/93 WV-DEP NOV 9	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Areas G-51 & G-57.	Mechanically stabilize slide areas to pass a 1.3 static factor of safety or remove all material from the downslope. Seed and mulch all areas.	Abatement Date: 7/09/93 Terminated: 6/24/93 Assessed: \$669 Pd.
3/28/94 WV-DEP NOV 10	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations.	Reclaim all disturbance to offsite areas and mechanically stabilize to a 1.3 factor of safety.	Abatement Date: 4/25/94 Terminated: 4/25/94 Assessed: \$900 Pd. 8/06/94
6/27/94 WV-DEP NOV 11	EAGLE No. 2 GAS S-3041-89 46-07386 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Left hand side of drainage outlet G-29.	Repair all damage to area, stabilize seed and mulch entire area.	Abatement Date: 7/26/94 Terminated: 7/26/94 Assessed: \$555 Pd. 11/26/94
3/05/93 WV-DEP NOV 14	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to follow approved pre-plan in that operator placed spoil material (sump cleaning) outside the bonded area. Material was placed on road shoulder above entrance to S-3034-87.	Clean up all material that was dumped on road and seed area.	Abatement Date: 3/12/93 Terminated: 3/12/93 Assessed: \$500 Pd.



V Date Issuing Agency V No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
/12/93 -DEP V 15	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to follow approved pre-plan in that operator placed spoil material outside the bonded area. Approximately 75' above site in NOV 14.	Remove all material from roadside and streambank and seed and mulch.	Abatement Date: 3/19/93 Terminated: 3/12/93 Assessed: \$853 Pd.
/26/93 -DEP V 16	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to properly maintain sediment control system in accordance with approved pre-plan. Ponds # 7, 8, & 9.	Properly construct sediment control system in accordance with approved pre-plan, or submit a modification reflecting what has been constructed.	Abatement Date: 10/08/93 Terminated: 10/08/93 Assessed: \$841 Pd.
/26/93 -DEP V 17	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to submit annual certifications for sediment ditches 5 thru 16, sumps, ditches, and culverts for haulroads.	Submit annual certifications.	Abatement Date: 10/08/93 Terminated: 10/08/93 Assessed: \$560 Pd.
/26/93 -DEP V 18	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to submit construction and installation certifications for ponds #7, 8, & 9.	Submit required certifications.	Abatement Date: 9/24/93 Terminated: 9/24/93 Assessed: \$917 Vacated At Conference
/26/93 -DEP V 19	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to submit surface water monitoring reports.	Submit surface water monitoring reports.	Abatement Date: 9/10/93 Terminated: 9/03/93 Assessed: \$698 Pd.
/26/93 -DEP V 20	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Conducted mining outside of the permitted area by constructing truck escape ramps.	Submit a modification in order to bond all areas outside of permitted area.	Abatement Date: 10/08/93 Terminated: 10/08/93 Assessed: \$1,621 Vacated At Conference
/24/94 -DEP V 21	CHILTON CONTOUR ROAD S-3043-87 46-07058 /4/10/89	Failed to protect off-site area from damage from slides during surface mining operations.	Reclaim all disturbance to off-site areas & mechanically stabilize to a 1.3 factor of safety.	Abatement Date: 4/25/94 Terminated: 4/25/94 Assessed: \$895 Assessment Waived at Conference
/25/92 -DEP V 1	5-BLOCK AUGER S-3064-87 46-07058 /4/10/89	Failed to certify drainage system for drainage areas 4 and 5.	Certify the drainage system for for drainage areas 4 and 5 including as built drawings and calculations if necessary.	Abatement Date: 5/27/92 Terminated: 5/27/92 Assessed: \$164
/12/93 -DEP V 2	5-BLOCK AUGER S-3064-87 46-07058 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations.	Mechanically stabilize slide area to pass a 1.3 factor of safety or remove the material from the slope.	Abatement Date: 4/30/93 Terminated: 4/29/93 Assessed: \$60 Pd.
/24/94 -DEP V 3	5-BLOCK AUGER S-3064-87 46-07058 /4/10/89	Failed to submit annual certification on sediment ditch 1, 2, & 3.	Submit annual certifications for sediment ditch 1, 2, & 3.	Abatement Date: 3/28/94 Terminated: 3/28/94 Assessed: \$376 Pd. 7/07/94
/11/94 -DEP V 10	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to maintain haulroad and ditches.	Regrade haulroad, clean ditchline so as to re-establish ditchline and clean all sumps.	Abatement Date: 4/08/94 Terminated: 4/08/94 Assessed: \$228 Pd. 8/06/94

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
3/11/94 WV-DEP NOV 11	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Drainage area 4, 28, and along haulroad.	Reclaim all disturbance to off-site areas & mechanically stabilize area to pass a 1.3 factor of safety.	Abatement Date: 6/06/94 Terminated: 6/06/94 Assessed: \$801 Pd. 8/06/94
5/03/94 WV-DEP NOV 12	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to properly construct sediment control system in accordance with the approved pre-plan.	Reclaim all disturbance to off-site areas and mechanically stabilize area.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$540 Pd. 10/07/94
5/03/94 WV-DEP NOV 13	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to construct the Black Gum Valley Fill in accordance with the approved pre-plan.	Submit stability analysis in order to assure a long-term static factor of safety of 1.3 or greater. Submit a modification of the design of the fill and diligently pursue approval.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$640 Pd. 10/07/94
5/03/94 WV-DEP NOV 14	T1 & T2 S-3065-87 46-07386 /4/10/89	Conducted mining outside of the permitted area.	Submit a permit modification in order to bond all disturbance outside the permit area and diligently pursue approval.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$640 Pd. 10/07/94
5/03/94 WV-DEP NOV 15	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to regrade, protect and stabilize all disturbed areas in a manner which effectively controls erosion.	Regrade all disturbed areas in a manner which effectively controls erosion.	Abatement Date: 8/01/94 Terminated: 8/01/94 Assessed: \$660 Pd. 10/07/94
5/03/94 WV-DEP NOV 16	T1 & T2 S-3065-87 46-07386 /4/10/89	Failed to certify that haulroad #2 & #3 were constructed in accordance with the approved pre-plan.	Certify haulroads #2 & #3.	Abatement Date: 7/05/94 Terminated: 7/05/94 Assessed: \$940 Pd. 10/07/94
3/26/93 WV-DEP NOV 11	T2, T3, & T4 S-3067-88 46-07386 /4/10/89	Failed to properly maintain drainage system. Drainage area B.	Remove slide material from sediment ditch and reestablish excavated sediment ditch.	Abatement Date: 5/21/93 Terminated: 5/06/93 Assessed: \$425 Pd.
3/26/93 WV-DEP NOV 12	T2, T3, & T4 S-3067-88 46-07386 /4/10/89	Failed to protect off-site areas from damages from slides during surface mining operations. Drainage area C.	Mechanically stabilize area to pass a 1.3 static safety factor or remove the material from the downslope. Seed and mulch all areas.	Abatement Date: 5/21/93 Terminated: 5/06/93 Assessed: \$610 Pd.
3/11/94 WV-DEP NOV 13	T2, T3, & T4 S-3067-88 46-07386 /4/10/89	Failed to sufficiently compact material used to backfill so as to ensure stability with a static safety factor of 1.3 - Drainage Area B.	Repair #1 damage caused by failure of backfill material. Compact & stabilize all material to achieve a static safety factor of 1.3.	Abatement Date: 6/06/94 Terminated: 6/06/94 Assessed: \$760 Pd. 8/06/94
5/12/94 WV-DEP NOV 14	T2, T3, & T4 S-3067-88 46-07386 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations.	Mechanically stabilize area to pass a 1.3 factor of safety. Reclaim all disturbance to off-site areas. Seed & mulch complete area.	Abatement Date: 6/10/94 Terminated: 6/06/94 Assessed: \$677 Pd. 10/07/94
4/09/92 WV-DEP NOV 9	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to protect off-site areas from slides or damage occurring during surface mining operations and allowed spoil material to be deposited outside the permit area.	Regrade and seed spoil material deposited on Permit #S-3019-86. Divert drainage away from the slide area.	Abatement Date: 7/09/92 Terminated: 6/20/92 Assessed: \$1,511 Conference Pending

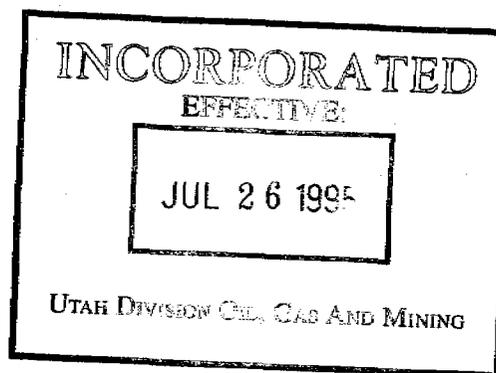
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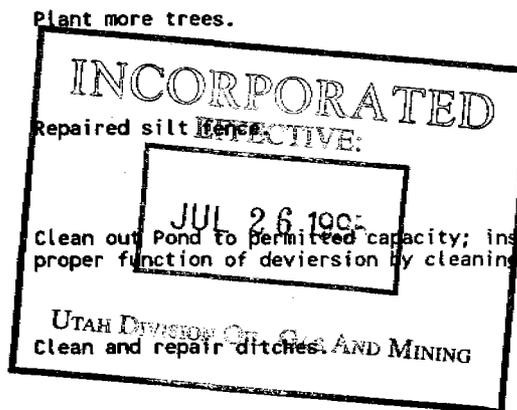
NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
2/11/93 WV-DEP NOV 10	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to protect off-site areas from slides during mining operations. Drainage areas C & D.	Pull material back up hillside. Stabilize and reclaim all disturbance to off-site areas. Seed and mulch all areas.	Abatement Date: 6/04/93 Terminated: 6/04/93 Assessed: \$580 Pd.
3/04/93 WV-DEP NOV 11	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to properly construct water retaining structures in accordance with the pre-plan.	Construct and certify Sediment Ditches 1,2, & 3. Submit a modification to include designed sediment control and diligently pursue.	Abatement Date: 6/02/93 Terminated: 6/02/93 Assessed: \$640 Pd.
3/04/93 WV-DEP NOV 12	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to follow permit conditions in that Laurel Branch #2 Valley Fill is being dumped from northern side of the valley.	Cease dumping material on the northern side of the fill and begin dumping material at the head of the valley.	Abatement Date: 3/12/93 Withdrawn
3/04/93 WV-DEP NOV 13	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Implemented IBR prior to written approval being granted.	Obtain written approval for IBR #1.	Abatement Date: 3/19/93 Withdrawn
3/05/93 WV-DEP NOV 14	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to protect off-site areas from damage from surface mining operations.	Remove material from County Route 83 that has washed from the infrequently used access road. Install sump on access road prior to intersection with County Route 83.	Abatement Date: 3/19/93 Withdrawn
3/05/93 WV-DEP NOV 15	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to follow groundwater monitoring plan as approved.	Follow approved groundwater monitoring plan. Groundwater monitoring waiver found.	Abatement Date: 3/19/93 Withdrawn
4/13/93 WV-DEP NOV 16	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to maintain access road so as to prevent erosion.	Maintain access road so as to prevent erosion.	Abatement Date: 4/27/93 Terminated: 4/29/93 Assessed: \$778 Pd.
5/13/93 WV-DEP NOV 17	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to adhere to scale distance formula during blasting operations.	Adhere to scale distance formula during blasting.	Abatement Date: 6/11/93 Terminated: 6/11/93 Assessed: \$598 Pd.
5/13/93 WV-DEP NOV 18	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to accurately record information in the blasting records.	Accurately record all required information in approved blasting records.	Abatement Date: 6/11/93 Terminated: 6/11/93 Assessed: \$540 Pd.
3/22/94 WV-DEP NOV 19	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to properly maintain access road, ditchline & sumps.	Grade access road, clean ditchline & all sumps,	Abatement Date: 4/08/94 Terminated: 4/08/94 Assessed: \$737 Pd. 8/06/94
3/22/94 WV-DEP NOV 20	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to protect off-site areas from damage from slides during surface mining operations. Drainage Area E and road.	Reclaim all disturbance to off-site areas and mechanically stabilize to pass a 1.3 factor of safety.	Abatement Date: 4/21/94 Terminated: 4/21/94 Assessed: \$800 Pd. 8/06/94

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
3/22/94 WV-DEP NOV 21	SYCAMORE SOUTH S-6020-89 46-07058 /4/10/89	Failed to clean out a sediment control structure when accumulation reaches 60% of the design capacity - Pond #5.	Clean out sediment accumulation to restore 100% design capacity.	Abatement Date: 5/20/94 Terminated: 5/20/94 Assessed: \$1,060 Pd.
6/16/94 WV-DEP NOV 11	RETTA No. 7 UNDERGRO UD-570 N/A (ABAN/	Failed to maintain the haulroad in a manner that controls erosion & siltation.	Regrade haulroad so that all water is directed to the ditchlines & sumps.	Abatement Date: 7/18/94 Terminated: 7/18/94 Assessed: \$437 Pd. 11/26/94



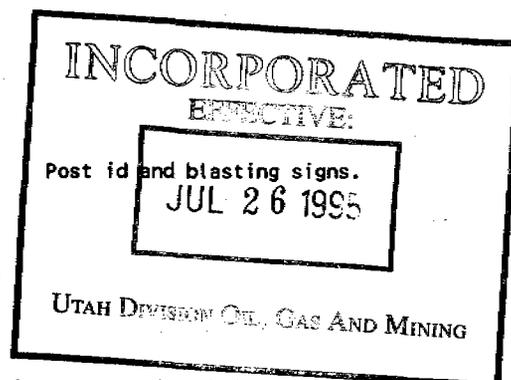
NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/07/93 KY-DSMRE NOV 037454	ROWDY 097-0051 15-12419 /6/26/80	Slide off permit area.	Repair and bond area.	Abatement Date: Terminated: 10/13/93 Assessed: \$500
2/14/94 KY-DSMRE NOV 03-8466	ELKCLICK 860-0169 15-14905 /10/11/84			Abatement Date: 7/29/94 Terminated: 7/28/94
2/14/94 KY-DSMRE NOV 038464	ELKCLICK 860-0169 15-14905 /10/11/84	Allowed backfill area to slump beyond the 3 ft. minimum; rills & gullies.		Abatement Date: 5/14/94 Pending
2/14/94 KY-DSMRE NOV 038465	ELKCLICK 860-5045 NOT ISSUE/	Allowed backfill area to slump beyond the 3 ft. minimum.		Abatement Date: 5/14/94 Terminated: 7/01/94
3/28/94 KY-DSMRE NOV 038282	GRAE NO. 1 (DEEP MIN 866-5038 15-12753 /3/2/81	Permittee has failed to submit mid-term review.	Submit mid-term review.	Abatement Date: 5/28/94 Terminated: 1/06/95
4/06/94 KY-DSMRE NOV 038284	GRAE NO. 1 (DEEP MIN 866-5038 15-12753 /3/2/81	Operator needs to clear obstructions from water diversions.	Operator needs to properly maintain ditches.	Abatement Date: 5/06/94 Terminated: 5/03/94
4/06/94 KY-DSMRE NOV 038284	GRAE NO. 1 (DEEP MIN 866-5038 15-12753 /3/2/81	Failure to maintain diversion ditches and underdrain portion at upper end; pond #001 is full of sediment.	Remedial measures ongoing.	Abatement Date: 5/06/94 Terminated: 5/03/94
7/07/94 KY-DSMRE NOV 31-0043	GRAE NO. 1 (DEEP MIN 866-5038 15-12753 /3/2/81	Dam #2 leaking in three places; Dam #1 not built according to the plans.	Dam #1 must have principal spillway; Dam #2 must be repaired and leaks stopped.	Abatement Date: 8/22/94 Pending
8/01/94 KY-DSMRE NOV 31-0177	GRAE NO. 1 (DEEP MIN 866-5038 15-12753 /3/2/81	Mining off permit on west side of at the mouth of Lick Fork underground.	Permittee must obtain an amendment to cover all off permit areas worked.	Abatement Date: 9/01/94 Pending
5/18/93 KY-DSMRE NOV 037759	GRAE NO. 2 866-5056 15-16349 /4/1/88	Failure to resubmit bond increment #1.	Resubmit bond.	Abatement Date: Terminated: 6/17/93
3/11/94 KY-DSMRE NOV 038204	GRAE NO. 2 866-5056 15-16349 /4/1/88	Failure to reclaim site on Area #2.	Company needs to begin reclamation activities.	Abatement Date: 4/18/94 Pending

Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/12/92 -DSMRE W 037255	GRAE NO. 2 867-5056 15-16349 /4/1/88	Failure to submit mid-term review.	Submit mid-term review.	Abatement Date: Terminated: 4/08/93
1/25/92 -DSMRE W 037370	ROWDY 897-0270 15-12419 /6/26/80	Failure to prevent fly rock.	Non-correctable.	Abatement Date: Terminated: 8/24/92 Assessed: \$1,600
2/29/93 -DSMRE W 037456	ROWDY 897-0270 15-12419 /6/26/80	Contemporaneous reclamation.	Reclaim to meet the standards.	Abatement Date: Pending
2/29/93 -DSMRE W 037724	ROWDY 897-0270 15-12419 /6/26/80	Failure to maintain haul road.	Grade haulroad.	Abatement Date: Terminated: 10/29/93
2/15/92 -DSMRE W 037452	ROWDY 897-0284 15-12419 /6/26/80	Backfilling and grading.	Complete grading.	Abatement Date: Terminated: 1/07/93
1/06/93 -DSMRE W 037455	ROWDY 897-0284 15-12419 /6/26/80	Slide off permit area.	Repair and bond area.	Abatement Date: Pending  Permit review pending.
1/17/94 -DSMRE W 03-8048	BIG CREEK 897-5035 15-16207 /10/15/87	Access Road has ditch cut across it.	Refill ditch and re-establish road to allow access.	Abatement Date: 5/18/94 Terminated: 5/13/94
1/08/93 -DSMRE W 037556	BIG CREEK 897-5035 15-16207 /10/15/87	Failure to plant enough trees.	Plant more trees.	Abatement Date: Terminated: 4/12/93
2/29/92 -DSMRE W 036920	UNIT TRAIN 897-6010 15-11719 /12/27/78	Failure to maintain silt fence.	Repaired silt fence.	Abatement Date: Terminated: 3/19/92
5/18/94 -DSMRE W 310000	UNIT TRAIN 897-6010 15-11719 /12/27/78	Pond 001 has exceeded allowed sediment capacity; DD #1 has filled in with sediment and other obstructions.	Clean out Pond to permitted capacity; insure proper function of diversion by cleaning it out.	Abatement Date: 6/20/94 Terminated: 7/11/94
5/26/92 -DSMRE W 036924	JEFF TIPPLE 897-6021. 15-05151 /3/14/75	Failure to maintain diversion ditches.	Clean and repair ditches.	Abatement Date: Terminated: 4/25/92



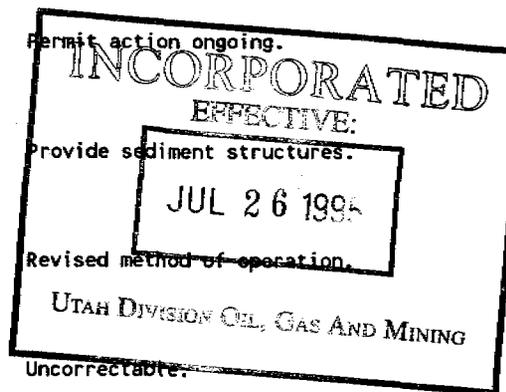
Violation Date Issuing Agency Violation No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/19/93 -DSMRE W 037779	JOB 5 060-0063 15-13937 /2/22/83	Failure to certify sediment ponds.		Abatement Date: 3/19/93 Terminated: 3/23/93
1/13/93 -DSMRE W 037528	JOB 2 097-0042 15-13937 /2/22/83	Failure to achieve post mining land use in timely manner.		Abatement Date: 4/14/94 Terminated: 2/23/94
1/08/93 -DSMRE W 037537	JOB 2 097-0042 15-13937 /2/22/83	Failure to meet water quality standards in McJilton Branch.		Abatement Date: Terminated: 11/08/93
1/05/92 -DSMRE W 036987	JOB 1 497-0043 15-13937 /2/22/83	Failure to backfill and grade.	Backfill and grade.	Abatement Date: 2/05/92 Terminated: 2/05/92
1/04/92 -DSMRE W 037335	JOB 1 497-0043 15-13937 /2/22/83	Violation against water quality provisions.	Uncorrectable.	Abatement Date: 9/04/92 Terminated: 2/05/92
1/29/94 -DSMRE W 310257	JOB 1 497-0043 15-13937 /2/22/83	Failure to maintain HF#6 and adequate vegetation throughout permitted area.	Maintain HF#6 according to specifications and revegetate permitted area.	Abatement Date: 12/28/94 Pending Extension request submitted 12/21/94; (2) abated 12/27/94
1/26/92 -DSMRE W 92081416001	JOB 1 497-0043 15-13937 /2/22/83	Spoil material on slope of unmined area of permit.	Agreed order signed 4/11/94.	Abatement Date: 2/14/94 Terminated: 4/28/94 Agreed order signed 4/11/94
1/23/94 -DSMRE W 94081416001	JOB 1 497-0043 15-13937 /2/22/83	Failure to abate MOV 92081416001 leaving rocks in unmined area.	Agreed order signed 4/11/94.	Abatement Date: 2/14/94 Terminated: 2/23/94 Assessed: \$750 Pd. 4/18/94 Settlement Agreement and Consent Decision signed
1/24/93 -DSMRE W 037492	JOB 4 497-0060 15-13937 /2/22/83	Failure to construct and certify hollowfills.	Revision in process.	Abatement Date: 1/09/95 Terminated: 12/28/94 Extension request submitted 10/28/94
1/17/93 -DSMRE W 037616	HAULROAD 497-7005 15-13937 /2/22/83	Allowed material to be carried off permit by vehicular traffic.		Abatement Date: Terminated: 12/22/93
1/21/92 -DSMRE W 037242	JOB 5 860-0001 15-13937 /2/22/83	Failure to maintain access road and hollowfill side drains.	Revegetate areas.	Abatement Date: 3/20/92 Terminated: 5/04/92

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
2/19/93 KY-DSMRE NOV 037778	JOB 5 860-0001 15-13937 /2/22/83	Failure to certify sediment ponds/hollowfills.	Contractor currently on site.	Abatement Date: 1/17/95 Pending  Extension request submitted 1/10/95
7/12/93 KY-DSMRE NOV 037802	JOB 5 860-0001 15-13937 /2/22/83	Allowed road to slump downgrade from road; installed unapproved culvert.		Abatement Date: 8/12/93 Terminated: 8/06/93
7/12/93 KY-DSMRE NOV 037802	JOB 5 860-0001 15-13937 /2/22/83	Slide from Road A and failure to construct 881 properly.		Abatement Date: 8/12/93 Terminated: 8/06/93
3/31/93 KY-DSMRE NOV 037533	JOB 6 897-0024 15-13937 /2/22/83	Failure to construct and maintain sidedrains on hollowfills 5,7,11.		Abatement Date: Terminated: 8/27/93
1/27/92 KY-DSMRE NOV 035458	JOB 6W 897-0283 15-13937 /2/22/83	Off permit disturbance.	Uncorrectable.	Abatement Date: Terminated: 1/27/92
6/08/92 KY-DSMRE NOV 036771	JOB 6W 897-0283 15-13937 /2/22/83	Off permit disturbance.	Uncorrectable.	Abatement Date: 6/08/92 Terminated: 6/08/92
10/23/92 KY-DSMRE NOV 037471	JOB 6W 897-0283 15-13937 /2/22/83	Failure to maintain backfill and grade; maintain pond; unapproved construction.	Construct approved silt basins.	Abatement Date: 11/23/92 Terminated: 5/17/93
3/08/93 KY-DSMRE NOV 037491	JOB 6W 897-0283 15-13937 /2/22/83	Failure to meet water quality effluent limitations.		Abatement Date: 3/12/93 Terminated: 3/26/93
4/26/93 KY-DSMRE NOV 037501	JOB 6W 897-0283 15-13937 /2/22/83	Failure to post signs.		Abatement Date: 5/26/93 Terminated: 5/27/93
12/27/93 KY-DSMRE NOV 037618	JOB 6W 897-0283 15-13937 /2/22/83	Failure to prevent rocks from leaving permitted area.		Abatement Date: 2/28/94 Terminated: 2/28/94
12/12/94 KY-DSMRE NOV 31-0258	JOB 6W 897-0283 15-13937 /2/22/83	Site structure 007 discharging water with a pH of 4.7.	Treat pond to bring water into compliance.	Abatement Date: 12/13/94 Pending



OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/10/94 Y-DSMRE OV 310029	JOB 6W 897-0283 15-13937 /2/22/83	Access road "A" has not been constructed as designed in approved application.	Construct access road as designed or revise permit to match field conditions.	Abatement Date: 2/10/95 Pending
9/28/94 Y-DSMRE OV 310256	JOB 6W 897-0283 15-13937 /2/22/83	Failure to construct BB26 prior to disturbing drainage.	Construct and certify BB26.	Abatement Date: 10/10/94 Terminated: 11/07/94
2/12/94 Y-DSMRE OV 310258	JOB 6W 897-0283 15-13937 /2/22/83	Dam 7 discharging water with a pH-4.7.		Abatement Date: 12/13/94 Terminated: 12/13/94
8/28/92 Y-DSMRE OV 037333	JOB 6W 897-0316 15-13937 /2/22/83	Failure to meet water quality standards.	Bring water quality within limitations.	Abatement Date: 8/31/92 Terminated: 9/24/92
0/22/92 Y-DSMRE OV 037470	JOB 6W 897-0316 15-13937 /2/22/83	Slide off permit; backfilling and grading; construct bench basins.	Stabilize slide area; construct bench basins.	Abatement Date: 11/20/92 Terminated: 5/18/93
1/05/93 Y-DSMRE OV 037482	JOB 6W 897-0316 15-13937 /2/22/83	Slide off permit.	Stabilize slide area.	Abatement Date: 2/05/93 Terminated: 5/05/93
3/10/93 Y-DSMRE OV 037499	JOB 6W 897-0316 15-13937 /2/22/83	Unstable material on downslope.	Stabilize material on downslope.	Abatement Date: 4/12/93 Terminated: 6/29/93
1/03/93 Y-DSMRE OV 037535	JOB 6W 897-0316 15-13937 /2/22/83	Failure to prevent material being placed downslope.		Abatement Date: Terminated: 12/20/93
1/03/93 Y-DSMRE OV 037535	JOB 6W 897-0316 15-13937 /2/22/83	Allowed rocks to leave permitted area.		Abatement Date: Terminated: 1/13/94
1/18/93 Y-DSMRE OV 037615	JOB 6W 897-0316 15-13937 /2/22/83	Failure to prevent material from being placed on downslope areas.		Abatement Date: 11/22/93 Terminated: 1/10/94
3/22/94 Y-DSMRE OV 037880	JOB 6W 897-0316 15-13937 /2/22/83	Allowed slump to occur extending beyond permit boundary.	Stabilize slump area and bring affected area under permit.	Abatement Date: 6/23/94 Terminated: 6/03/94  7/28/94 response letter regarding pattern of

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
10/29/93 KY-DSMRE NOV 038270	JOB 6W 897-0316 15-13937 /2/22/83	Rocks and boulders off permitted area.		Abatement Date: Terminated: 11/03/93
10/29/93 KY-DSMRE NOV 038270	JOB 6W 897-0316 15-13937 /2/22/83	Failure to maintain solid berm on coal seam mined in area.		Abatement Date: Terminated: 11/04/93
5/12/94 KY-DSMRE NOV 310030	JOB 6W 897-0316 15-13937 /2/22/83	Access roads A, B-1, B-2, C-1 have not been constructed as designed in the approved permit application.	Construct road as per permit or revise permit.	Abatement Date: 12/09/94 Terminated: 12/12/94
6/23/94 KY-DSMRE NOV 310032	JOB 6W 897-0316 15-13937 /2/22/83	Instability in the backfill. Slump and small slide area along the western clope of Area #2.	Stabilize and revegetate.	Abatement Date: 7/22/94 Terminated: 7/25/94
7/06/94 KY-DSMRE NOV 310034	JOB 6W 897-0316 15-13937 /2/22/83	Material has entered opening at 5A reservoir, having an adverse impact on reservoir.	Clean out and repair reservoir restoring water supply to previous quality and quantity level.	Abatement Date: 11/21/94 Pending  Extension request submitted 1/10/95.
8/05/94 KY-DSMRE NOV 31010	JOB 6W 897-0316 15-13937 /2/22/83	Lower portion at previous slide has become saturated and unstable resulting in off permit slide.	Move unstable material back onto permitted area and stabilize.	Abatement Date: 1/09/95 Pending  Extension request submitted 10/28/94
5/26/93 OSM NOV 9381416001	JOB 6W 897-0316 15-13937 /2/22/83	Rocks and boulders off permitted area.	Agreed order signed 4/11/94.	Abatement Date: 3/16/94 Terminated: 4/28/94  Agreed order signed 4/11/94.
11/04/93 KY-DOW NOV	JOB 7 897-0329 15-13937 /2/22/83	Constructed hollowfill without authorizations.	Permit action ongoing.	Abatement Date: 2/04/94 Pending
8/05/92 KY-DSMRE NOV 037332	JOB 7 897-0329 15-13937 /2/22/83	Failure to provide approved sediment control structure.	Provide sediment structures.	Abatement Date: 8/12/92 Terminated: 8/31/92
11/17/92 KY-DSMRE NOV 037473	JOB 7 897-0329 15-13937 /2/22/83	Method of operation.	Revised method of operation.	Abatement Date: 12/17/92 Terminated: 12/18/92
9/04/92 KY-DSMRE NOV 037531	JOB 7 897-0329 15-13937 /2/22/83	Disturbance within 100' of buffer zone of cemetery.	Uncorrectable.	Abatement Date: 10/04/92 Terminated: 10/05/92



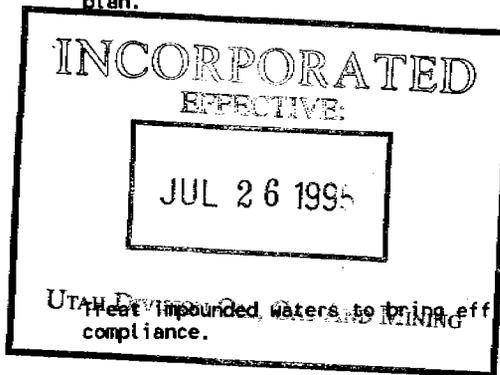
Violation Date	Mine Name	Nature of Violation	Remedial Measures	Abatement Date
Issuing Agency	Permit Number			Violation Status
Violation No.	MSHA ID/Date			Administrative Proceedings
12/28/94	JOB 8	Failure to construct BB2 and BB5.	Construct and certify BB2 and BB5.	Abatement Date: 12/27/94
MSMRE	897-0360			Terminated: 12/28/94
W 310061	15-13937 /2/22/83			

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
10/27/92 WV-DEP NOV 4	MAPLE MEADOW 0-58-83 46-04847 /10/20/75	Failed to remove combustible material from refuse area.	Remove all combustible material from the refuse area.	Abatement Date: 11/05/92 Terminated: 11/05/92 Assessed: \$700 Pd. 6/25/92
11/13/92 WV-DEP NOV 5	MAPLE MEADOW 0-58-83 46-04847 /10/20/75	Failed to follow approved plan for top edge ditch on the refuse pile.	Repair maintain edge ditches so as to be free flowing and at the proper depth.	Abatement Date: 12/04/92 Terminated: 12/04/92 Assessed: \$538 Pd. 3/27/93
1/26/93 WV-DEP NOV 6	MAPLE MEADOW 0-58-83 46-04847 /10/20/75	Failed to prevent indiscriminate litter around the plant area.	Clean up litter.	Abatement Date: 2/03/93 Terminated: 2/03/93 Assessed: \$575 Pd. 1/31/94
11/30/92 WV-DEP NOV 4	MAPLE MEADOW U-91-83 46-03374 /8/07/72	Disturbed outside the bonded area.	Permit and bond area of disturbance off of the bonded area. Abatement period extended pending permit review.	Abatement Date: 2/25/93 Terminated: 2/25/93 Assessed: \$1,240 Pd. 3/27/93



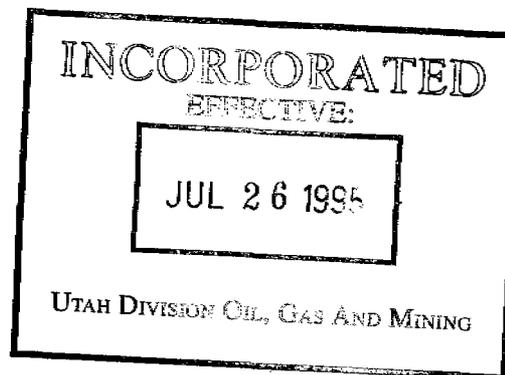
OV Date Issuing Agency OV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
6/15/92 N-OSMRE OV 92-50	PINE RIDGE 2769 40-02998 /1988	Failure to comply with Water Quality Control Act of 1977.	Submit Biassay tests.	Abatement Date: 8/30/92 Terminated: 9/02/92
8/18/93 ONC OV 93-41	BIG BRUSH CREEK 2846 40-02947 /1987	Basin 001A Big Brush constructed in unnamed tributary.	Remove Basin 001A.	Abatement Date: 9/24/93 Pending
9/29/93 ONC OV 93-57	BIG BRUSH CREEK 2846 40-02947 /1987	Sediment in Spring Branch at dead head road crossing.	Remove sediment.	Abatement Date: Terminated: 9/29/93
9/30/93 ONC OV 93-58	BIG BRUSH CREEK 2846 40-02947 /1987	Sediment in unnamed tributary and GF Creek.	Remove sediment.	Abatement Date: Pending
0/29/93 ONC OV 93-67	BIG BRUSH CREEK 2846 40-02947 /1987	Remove limestone from unnamed tributary to Gladly Fork.	Remove rip rap.	Abatement Date: 11/15/93 Terminated:
9/28/93 SMRE JV 9391120010(TV1)	BIG BRUSH CREEK 2846 40-02947 /1987	Failure to follow approved mining plans.	Submit revised plan; follow sequence plan.	Abatement Date: 4/28/94 Pending
0/19/93 SMRE JV 9391120011	BIG BRUSH CREEK 2846 40-02947 /1987	Failure to minimize disturbance of hydrologic balance; unnamed tributary.	Remove sediment in unnamed tributary and G.F. Creek.	Abatement Date: 11/22/93 Pending
8/09/94 N-OSMRE OV 94-91-120-008	BIG BRUSH CREEK 2846 40-02947 /1987	Operator failed to maintain sediment control measures to prevent sediment in streamflow.	Clean out and repair sump.	Abatement Date: 8/23/94 Terminated: 8/15/94
9/29/92 N-OSMRE OV 9292099005	PINE RIDGE 2876 40-02998 /1988	Failure to maintain revegetated outslope.		Abatement Date: 10/14/92 Terminated: 10/02/92
5/02/92 N-OSMRE OV 92928207	PINE RIDGE 2876 40-02998 /1988	Failure to conduct operations to prevent material hydrologic damage.	Perform all remedial measures necessary to minimize off site impact.	Abatement Date: 6/17/92 Terminated: 6/16/92
5/24/92 N-OSMRE OV 92928209	PINE RIDGE 2876 40-02998 /1988	Failure to conduct operation to prevent material hydrologic damage.	Perform all remedial measures necessary to minimize off site impact.	Abatement Date: 6/29/92 Terminated: 7/20/92

NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
9/24/92 TN-OSMRE NOV 92928214	PINE RIDGE 2876 40-02998 /1988	Water samples from seep show pH at 4.8.		Abatement Date: 10/05/92
7/19/93 NONC NOV 93-35	PINE RIDGE 2876 40-02998 /1988	BB-10 pump back not operating.	Send copies of daily inspection records on weekly basis.	Abatement Date:
12/29/93 TN-OSMRE NOV 93-82	PINE RIDGE 2876 40-02998 /1988	Leaking embankment at Basin 002 Pine Ridge.	Fix leak.	Abatement Date: Pending
7/12/93 TN-OSMRE NOV 93-91-120-008	PINE RIDGE 2876 40-02998 /1988	Failure to maintain basin to prevent seepage from embankment.	Repair discharge pipe; implement basin treatment.	Abatement Date: 9/08/94 Pending
3/08/93 TN-OSMRE NOV 9391120002	PINE RIDGE 2876 40-02998 /1988	Failure to backfill and grade disturbed area to eliminate depression.	Backfill and grade disturbed area to eliminate depression.	Abatement Date: 4/08/93
3/08/93 TN-OSMRE NOV 9391120002	PINE RIDGE 2876 40-02998 /1988	Failure to construct sediment control measures according to plan.	Construct sediment control measures according to plan.	Abatement Date: 4/08/93
4/06/94 TN-OSMRE NOV 94-15	PINE RIDGE 2876 40-02998 /1988	Elevated Manganese at Basin 003 Pine Ridge.		Abatement Date: Pending
5/09/94 TN-OSMRE NOV 94-53	PINE RIDGE 2876 40-02998 /1988	Elevated Manganese in Basin 001 Pine Ridge.		Abatement Date: Pending
2/14/94 OSMRE NOV 9491120002	PINE RIDGE 2876 40-02998 /1988	Failure to meet pH limits for discharges.	Treat impounded waters to bring effluent into compliance.	Abatement Date: 2/28/94 Terminated: 3/01/94
3/15/94 OSMRE NOV 9491120003	PINE RIDGE 2876 40-02998 /1988	Failure to meet pH limits for discharges.	Treat impounded waters to bring effluent into compliance.	Abatement Date: 3/29/94 Pending
3/15/94 TN-OSMRE NOV 9491120003	PINE RIDGE 2876 40-02998 /1988	Failure to meet effluent limits (pH<6) for discharge from disturbance area.	Treat the pond to meet compliance pH standards (6-9).	Abatement Date: 3/29/94 Pending



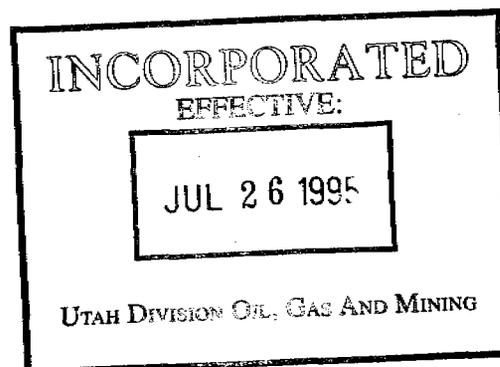
Issue Date	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
4/11/94 I-OSMRE JV 9491120006	PINE RIDGE 2876 40-02998 /1988	Failure to meet effluent limits for discharges of water disturbed by mining. (8810 pumpback system)		Abatement Date: Terminated: 4/11/94
3/05/92 I-OSMRE JV N9292082005(1)	PINE RIDGE 2876 40-02998 /1988	Failure to meet effluent limitations of water from Pone #001.		Abatement Date: 3/09/92 Terminated: 9/30/92
7/23/92 I-OSMRE JV 92-69	BIG BRUSH CREEK 2895 40-02947 /1987	Water Quality Control Act discharge violations.	Treat or discontinue discharge.	Abatement Date: 10/06/92 Pending
7/24/92 I-OSMRE JV 9292099004	BIG BRUSH CREEK 2895 40-02947 /1987	Discharge sample from Basin #003 shows elevated manganese.	Correct problem.	Abatement Date: 9/24/92 Terminated: 9/29/92
4/02/93 I-OSMRE JV 9391120005	BIG BRUSH CREEK 2895 40-02947 /1987	Permittee failed to comply with ordered revision date 10/22/92.	Cease coal mining operations and comply with ordered revision.	Abatement Date: Vacated: 6/03/93
7/09/92 I-OSMRE JV 92092081001	GLADY FORK 2896 40-02947 /1987	Failure to obtain approval of mitigation plan required.		Abatement Date: 8/04/92 Vacated: 1/07/93
3/31/91 I-OSMRE JV 91-98	GLADY FORK 2896 40-02947 /1987	Failure to meet effluent limitations of water from Pond #002.	Implemented measurements to bring discharge into compliance.	Abatement Date: 12/31/91 Pending  No response from TDWPC.
3/20/92 I-OSMRE JV 92-38	GLADY FORK 2896 40-02947 /1987	Wastewater discharge data did not comply with NPDES permit.	Long term plan to be submitted.	Abatement Date: Pending
5/09/92 I-OSMRE JV 9292081001	GLADY FORK 2896 40-02947 /1987	Failure to meet effluent limits for manganese from basin #002.	Bring discharge within effluent limitations.	Abatement Date: 6/18/92 Terminated: 8/04/92
4/16/92 I-OSMRE JV 9292099001	GLADY FORK 2896 40-02947 /1987	Failure to prevent contributions of suspended solids to the stream flow.	Submit to OSM revision reflecting new designs and controls.	Abatement Date: 5/07/92 Terminated: 4/24/92
4/16/92 I-OSMRE JV 9292099001	GLADY FORK 2896 40-02947 /1987	Failure to submit mining plan map reflecting on site conditions.	Submit new operations map.	Abatement Date: 5/07/92 Terminated: 4/24/92

Issue Date Issuing Agency JV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
1/28/93 I-OSMRE JV 9391120001	GLADY FORK 2896 40-02947 /1987	Failure to stabilize and control erosion.	Fill, grade and stabilize rills and gullies.	Abatement Date: 2/22/93 Terminated: 1/28/93
3/24/93 I-OSMRE JV 9391120003	GLADY FORK 2896 40-02947 /1987	Failure to maintain diversions according to design.	Reconstruct and maintain diversion ditch according to design.	Abatement Date: 4/21/93 Extension: 11/15/93
5/23/94 I-OSMRE JV 94-34	GLADY FORK 2896 40-02947 /1987	Suspended solids at Basin 005 Gladly Fork.		Abatement Date: Pending
4/12/94 I-OSMRE JV 94-41	GLADY FORK 2896 40-02947 /1987	Discharge violation at 002 Gladly Fork.		Abatement Date: Pending
4/29/94 I-OSMRE JV 94-49	GLADY FORK 2896 40-02947 /1987	Elevated Iron and Manganese in Basins 002 and 003 Gladly Fork.		Abatement Date: Pending
3/09/94 I-OSMRE JV 94-91-120-009	GLADY FORK 2896 40-02947 /1987	Operator failed to eliminate rills and gullies.	Fill, regrade or otherwise stabilize areas where rills and gullies are present on the revegetated area.	Abatement Date: 9/08/94 Pending
2/14/94 SMRE JV 9491120001(TV1)	GLADY FORK 2896 40-02947 /1987	Failure to maintain sediment pond 004B according to design.	Unclog the principal spillway pipe and re-establish basin.	Abatement Date: 3/14/94 Terminated: 3/24/94
3/21/94 SMRE JV 9491120005	GLADY FORK 2896 40-02947 /1987	Failure to meet effluent limits (manganese) for discharges from Basin 003.	Treat impounded waters to bring effluent into compliance.	Abatement Date: 4/18/94 Pending
4/14/94 I-OSMRE JV 9491120007	GLADY FORK 2896 40-02947 /1987	Elevated Manganese in Basin 003, Gladly Fork.		Abatement Date: 4/21/94 Terminated: 4/14/94



NOV Date Issuing Agency NOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
8/02/94 KY-DSMRE NOV 310124	JOB 5 413-0075 15-13936 /2/23/83	Failure to grade slope on backside of H.F. #1; failure to maintain water supply area; area behind SS#9 has surface slumpage.	Grade, seed and mulch slope on backside of H.F. #1 and water supply area; repair SS#9 slumpage.	Abatement Date: 9/01/94 Terminated: 9/06/94
11/22/93 KY-DSMRE NOV 037849	JOB 5 860-0003 15-13936 /2/23/83	Failure to maintain contemporaneous reclamation of highwall right of road.	Permit revision ongoing.	Abatement Date: 2/13/95 Pending
8/26/94 KY-DSMRE NOV 310108	JOB 5 860-0003 15-13936 /2/23/83	Failure to construct BB4 and 5; slide occurred on west side of Hurricane Branch.	Construct BB4 and 5; include slide in permit area.	Abatement Date: 11/20/94 Terminated: 11/22/94
11/22/93 KY-DSMRE NOV 037848	JOB 5 860-0047 15-13936 /2/23/83	Failure to maintain contemporaneous reclamation of spoil pile.	Grade area; seed and mulch.	Abatement Date: 5/24/94 Terminated: 5/24/94 Extension request submitted 3/22/94
11/22/93 KY-DSMRE NOV 037850	JOB 7 860-0157 15-13936 /2/23/83	Failure to maintain contemporaneous reclamation of highwall right of Jakes Branch.	Permit revision ongoing.	Abatement Date: 2/11/95 Pending
8/26/94 KY-DSMRE NOV 310107	JOB 7 860-0157 15-13936 /2/23/83	Failure to maintain HF 4 and 11; rills and gullies; bare areas on HF3; dam 11 needs cleaning.	Seed and mulch bare areas around HF4 and 11; clean out dam area.	Abatement Date: 1/26/95 Pending Extension request submitted 11/11/94; 2,3,4 abated
12/23/92 KY-DSMRE NOV 037453	SHOP 897-7000 15-13936 /2/23/83	Disturbance within 100' of a cemetery.	Uncorrectable.	Abatement Date: Terminated: 12/23/92

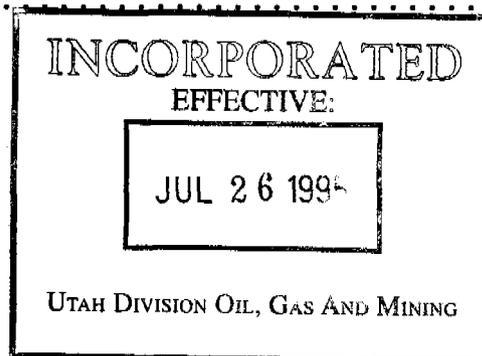
IOV Date Issuing Agency IOV No.	Mine Name Permit Number MSHA ID/Date	Nature of Violation	Remedial Measures	Abatement Date Violation Status Administrative Proceedings
5/18/94 O-DMG IOV 94020250001	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to provide a copy of Part 865 "Protection of Employees" of Title 30 of CFR to all current employees.	Provide copy of 30 CFR 865.11(b) to all current employees.	Abatement Date: Terminated: 6/01/94 Assessed: 6/01/94
1/27/93 O-DMG IOV C-92-003	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to maintain coal work pile configuration.		Abatement Date: Terminated: 2/26/93 Assessed: \$1,000 Pd. 4/23/92
4/01/93 O-DMG IOV C-93-020	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to adequately sign topsoil area of sewage lagoon construction.		Abatement Date: Terminated: 4/01/93 Assessed: \$500 Pd. 7/24/93
5/19/93 O-DMG IOV C-93-078	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to protect topsoil/areas not designated for disturbance.		Abatement Date: Terminated: 7/20/93 Assessed: \$800 Pd.
5/19/93 O-DMG IOV C-93-079	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to maintain drainage and sediment control features.		Abatement Date: Terminated: 5/26/93 Assessed: \$800 Pd.
9/30/93 O-DMG IOV C-93-137	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to collect subsidence data as outlined in permit.		Abatement Date: Terminated: 12/17/93 Assessed: \$900 Pd.
3/30/94 O-DMG IOV C-94-004	FOIDEL CREEK C-82-056 05-03836 /9/27/83	Failure to minimize disturbance to the prevailing hydrologic balance.	Treat and control runoff from mine.	Abatement Date: Terminated: 5/19/94 Assessed: \$1,900



**SECTION 3.1**  
**GENERAL MINING**

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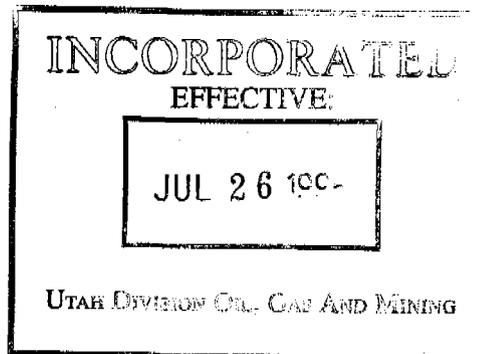


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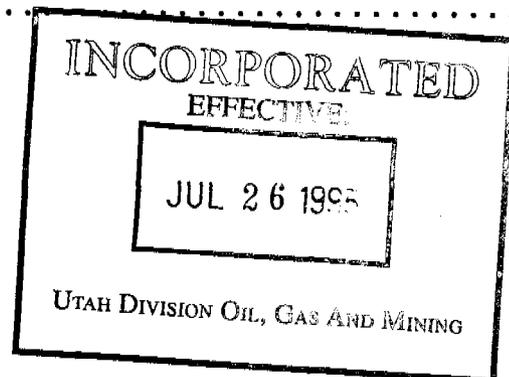
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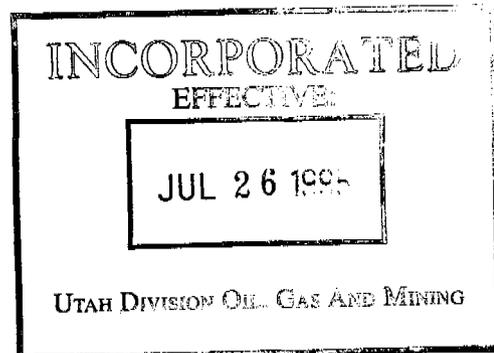
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EXHIBIT 3.1-13	Deleted June 1987	
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**SUMMARY OF CURRENT SITE CONDITIONS  
CASTLE GATE MINE  
CARBON COUNTY, UTAH**

**SECTION 3.1 - GENERAL MINING**

**DATE:** June 12, 1995

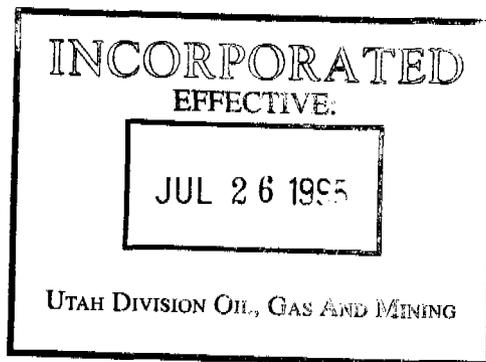
**CURRENT CONDITIONS:**

The Castle Gate Mine is currently dormant. No coal is currently being mined, removed, or processed at the mine.

The following list indicates the various areas associated with the mine, and their corresponding permit sections:

- Sowbelly Gulch (Sowbelly Canyon, Section 3.2)
- Hardscrabble Canyon (Section 3.3)
- Preparation Plant (Section 3.4)
- Refuse Disposal Facility (Section 3.4)
- Adit No. 1 (Section 3.5)
- Gravel Canyon (Section 3.6)
- Crandall Canyon (Section 3.7)
- Castle Gate Unit Train Loadout (Section 3.8)
- Castle Gate Degasification Wells (Section 3.9)
- Castle Gate Slurry Injection Wells (Section 3.10)
- Willow Creek Area (Chapter 12)

Current conditions of the various sites are described at the beginning of the corresponding permit sections.



**CHAPTER 3  
GENERAL MINING**

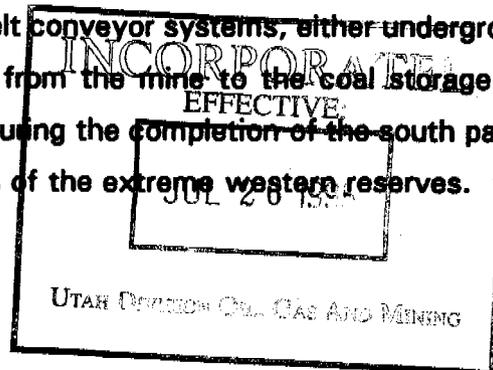
**3.1 GENERAL MINING**

The mining plan has been prepared based on data derived from some 95 core holes now drilled on the property, on geophysical logs from 18 of these holes, and on the large volume of information available from previous mining experience on this property. (A representative sample of logs are included in Chapter 6, Appendix 6A.)

At this time, 7 of the 9 coal seams identified on the property are considered to be economically minable. There has been previous mining in 8 of the seams on this property. In almost every case, access to the seam being mined was obtained through outcrop portals. Mining invariably proceeded down dip and extended to a distance of from 1 to 2 miles. Consequently, much of the coal reserve on this property with less than from 1,000 to 2,000 feet of cover (depending on the seam) has already been depleted by this earlier mining. The preponderance of the remaining minable reserves on this property is located at considerable depth below the surface (averaging more than 1,500 feet). Previous mining also limits the ability to obtain access to the remaining reserves through outcrop openings, as was the practice in the past. Consequently, the Mining Plan anticipates the construction of vertical shafts centrally located within an assigned mine reserve. These shafts can best provide the necessary mine ventilation air and the optimum location for necessary men-and-materials access facilities.

Exhibit 3-3 through 3-9 identify the vertical shaft and portal locations and the assigned reserve areas to be serviced by the respective shafts and portals.

Coal haulage, whenever possible, will use belt conveyor systems, either underground (as at present) or on surface to convey the coal from the mine to the coal storage and washing facility. Truck haulage will be necessary during the completion of the south part of the No. 5 Mine and during the development stages of the extreme western reserves. Until

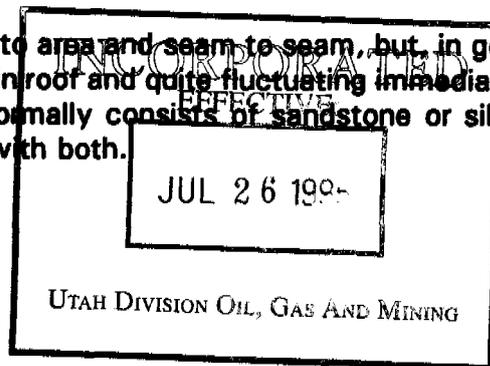


the mines can be developed to a point where connections with main underground conveyor systems can be made.

Exhibit 3-2 identifies the route of coal haulage from the mines to the washing facility and train loadout area at Castle Gate.

The proposed Mine Plan attempts to give the necessary weighted consideration to various factors which must influence the general mine layout and the coal that can be recovered. The factors considered, but not necessarily in their order of priority, are as follows:

1. Previous mining, both in the seam to be mined and in superjacent and subjacent seam.
2. The consideration that multiple seam mining must be practiced in almost all mines.
3. The general nonuniformity of coal deposition peculiar to this coal field.
4. The great depth of cover prevailing over much of the reserve area yet to be mined, which, in certain areas, exceeds 3,000 feet.
5. The predominant major sandstones which prevail throughout the Utah coal fields and which have contributed to the history of "bumps" or bursting of coal pillars during traditional room-and-pillar mining in this field.
6. The known presence of methane gas which has demonstrated emission rates which require the circulation of abnormally large volumes of mine ventilating air.
7. The coal dust made from the mining process has one of the highest explosibility ratings in the United States.
8. The susceptibility of the coal seams to spontaneous combustion.
9. The coal conditions vary from area to area and seam to seam, but, in general, the coal seams have competent main roof and quite fluctuating immediate roof conditions. The immediate roof normally consists of sandstone or siltstone with varying problems associated with both.



10. The existence of channel sandstones and associated rock spars have a definite effect on roof conditions and reserves when they are encountered near or in the coal seams.
11. Rolls are common in all of the seams and vary in severity from slight undulations to as much as 20% to 30%.

Based on present practice in Utah and using today's economics and technology, the Mine Plan considers those reserve areas in all seams where the seam height exceeds 5 feet and where the tonnage that can be recovered will support the cost of development. The Mine Plan also anticipates a maximum mining height of 12 feet.

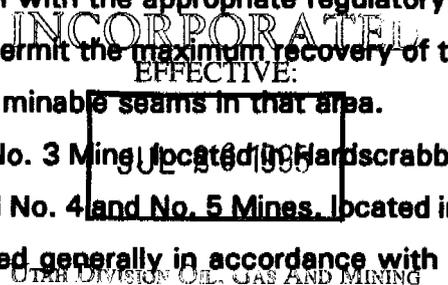
Other controlling factors reflected in the Mining Plan Area are the following:

1. Where two seams of minable coal are located within 30 vertical feet from each other, then only the more economically minable of the two seams is scheduled to be mined.
2. A uniform pillar width of 50 feet is maintained against the property boundary in all seams. The Utah Industrial Commission has already provided the necessary variance from the state requirements in this area.
3. A 200 foot minimum barrier pillar will be maintained around all abandoned mine workings.
4. Barrier pillars will be left around all permanent surface structures so that a 30 degree angle of draw extends to the deepest coal seam to be mined in the area of the facility.

The above four paragraphs are general statements. When different situations arise, site specific plans will be finalized in conjunction with the appropriate regulatory agencies.

We believe the plans, as submitted, will permit the maximum recovery of the minable reserves in each assigned mine area and from all minable seams in that area.

Development of the two existing mines (No. 3 Mine located in Handscrabble Canyon, and mining in the Sub-3 Seam; and the combined No. 4 and No. 5 Mines, located in Sowbelly Gulch, and mining in the D Seam ) has proceeded generally in accordance with the Mining



Plan submitted in May, 1976, and approved in April, 1977. The rate of progress achieved in the time interval is, in both cases, somewhat slower than was expected. The #5 and #4 Mines were abandoned in 1988 and sealed in July of 1988.

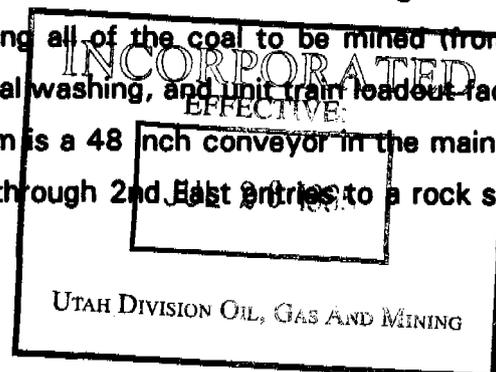
At present, the annual production capacity of the #3 Mine will reach 1.0 million tons of clean coal in 1989.

As now conceived, the mine will be systematically expanded to accommodate three units of continuous miner equipment, employed almost entirely on main entry and longwall panel development, and one longwall mining unit providing the main means of bulk extraction. A new shaft and fan was constructed in Crandall Canyon in 1982 for additional mine ventilation capacity and, in the case of No. 3 mine, to provide more efficient men-and-materials access (see Section 3.7).

Exhibits 2-1, 2-2, 3-2 through 3-9 show the reserves assigned to #3, #4 and #5 Mines, the location of the proposed seam intra-connections to be constructed to support the proposed production, and the schedule of development anticipated for the active mine over the next 5 year period.

Table 3.1-1 summarizes the in-place reserves assigned to each seam. As now planned, the two shafts located in Crandall Canyon will be the focal point in the mining of Sub-3, A, B, Cw, and D Seam reserves. The present portals of the No.5 mine, have been sealed. Access to the seams located north of the Crandall Canyon air shafts will be by these air shafts and a cross measure draft from an upper most D seam to the lower most Sub 3 Seam. This facility will directly access the A, D and Sub 3 and indirectly access the B and Cw Seams. Access to the reserves to the west of Crandall Canyon shafts will be made from the Sub 3 Seam. This will be accomplished with interseam connections such as slopes and raise bored shafts.

The No. 3 Mine main entries in the Sub-3 Seam and the main line underground belt conveying system will provide the means of hauling all of the coal to be mined (from all seams) in the No. 3 Mine to the coal stockpiling, coal washing, and unit train loadout facility located at Castle Gate. The coal conveying system is a 48 inch conveyor in the main line entries through the main slope of the No. 3 Mine through 2nd East entries to a rock slope

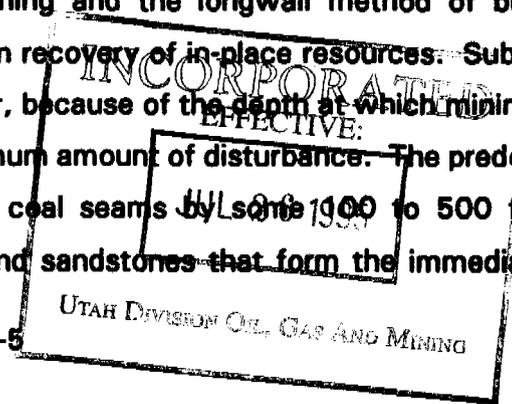


connecting to the rehabilitated conveyor entry in Utah Fuel No. 1 portal. The coal is now conveyed as described through the Utah Fuel No. 1 Mine to the portal of that mine, transferred to an underpass conveyor gallery below Highway 6, and delivered to the raw coal stockpile at the Castle Gate coal handling area. Vertical bins or slopes will be used to transfer coal to the Sub-3 Seam from operations in other seams.

Existing surface facilities and the measures being taken to achieve compliance with the regulations are described in succeeding chapters of this volume. Section 3.7 illustrates the proposed facilities to be located adjoining the shafts in Crandall Canyon. Detailed plans for any new facilities will be prepared and submitted to the regulatory agencies for approval as modifications to this mine plan.

In all areas where it is necessary to disturb the surface to provide the surface facilities required to support the underground operation, every effort will be made to minimize the extent and effect of this construction on the environment. Upon initial grading of these areas, topsoil, where occurring, shall be removed and compacted into storage piles. The surface of these storage piles will be seeded with appropriate vegetative cover to prevent erosion. As these areas are abandoned, slopes and/or shafts will be sealed, all buildings and structures removed, the sites graded, and the best materials (topsoil when available) will be used to recover them. This will be followed by fertilization and seeding in an effort to restore a native, diverse, and self-sustaining cover. The objective of all reclamation activity will be to restore these areas to rangeland, and where feasible to blend the reclaimed area contour with that of the surrounding topography. Detailed drainage control measures and reclamation plans are contained in the sub-sections of this chapter and in Chapters 7, 8 and 9.

Mining operations in the Mine Plan Area reserves will take place at depths averaging in excess of 1,500 feet. Multiple seam mining and the longwall method of bulk coal extraction will be practiced to ensure maximum recovery of in-place resources. Subsidence of the surface has been experienced. However, because of the depth at which mining takes place, the surface subsidence results in a minimum amount of disturbance. The predominant main roof sandstone members overlying the coal seams by some 100 to 500 feet are expected to be supported on the siltstones and sandstones that form the immediate roof



above the coal being mined. These immediate siltstones and sandstones will break and cave behind the retreating longwall face. The broken caved material will fill the void created by removal of the coal. The upper sandstone members will then rest on and squeeze the broken material without themselves breaking. The squeezing will continue until stable conditions are restored, by which time, the predominant sandstones will have subsided slowly without breaking and will permit those overlying members and surface materials to subside uniformly.

An established grid survey on the surface has been used over all area of bulk extraction to monitor surface subsidence and to develop the data required to establish complete control of this aspect of mining, all as described in 3.1-2 of this volume. Longwall mining methods applied in Europe have enabled complete extraction of coal seams at similar depths and directly under major industrial plants without disruption of the plant operation.

Minor surface disturbance caused by subsidence is very temporary and does not interfere with the main function of which the surface is used (i.e., the support of domestic and wild animals).

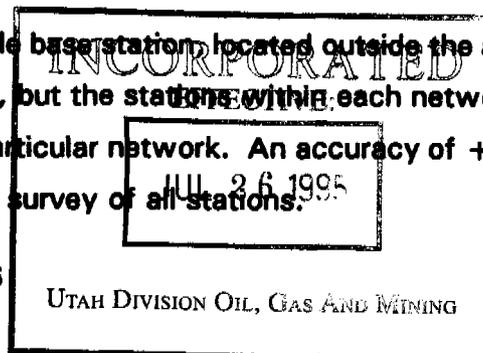
### 3.1-1 Subsidence Monitoring Program

Subsidence has been monitored on the surface overlying longwall panels. As a general rule, a minimum of three monuments were placed above each panel (i.e., one on each end and one in the middle); however, the spacing of such stations did not exceed 2,000 feet. Stations were also set along all main entries at intervals of 2,000 feet. Due to the extreme topographic relief and limited access in the area, monuments were generally placed along existing access routes, if possible. Additional points will also be located at all sensitive locations, such as water tanks, main highways, and rivers prior to mining within the angle of draw.

Each subsidence network is tied to a stable base station, located outside the affected area. More than one network may be employed, but the stations within each network shall be referenced to only the base station for that particular network. An accuracy of  $\pm .1$  foot, vertical and horizontal, will be maintained in the survey of all stations.

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Stations were placed at least 1,000 feet in advance of the active mining, and were monitored twice per year. The results of such monitoring, along with a map, was reported to the USGS mining supervisor within 30 days after completion. Such reports included a statement regarding the visual affects noted, such as tension cracks or subsidence pits. A significant subsidence event will be reported immediately to the mining supervisor at USGS. The Division office will be notified immediately after subsidence is detected.

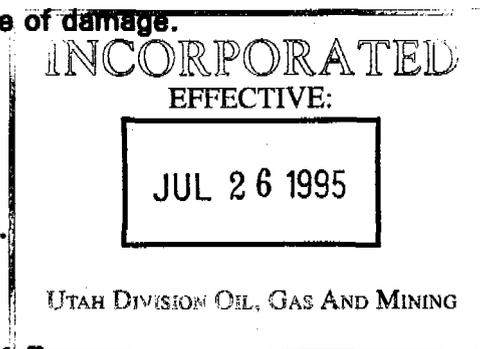
The monitoring program began on June 30, 1978, and reports have been routinely submitted to USGS since that time. Each report is progressive, referring back to original configurations. Figure 3.1-1 is a copy of the last report. Exhibit 3-21A shows the locations of monitoring stations and control points for the active mining areas. Exhibit 3-21B shows the locations of the proposed points in Price Canyon.

Some changes have occurred, however the monitored changes are not apparent to the eye and there has been no damage to the existing surface land uses (primarily grazing). There are no buildings or other structures which could be damaged that are within the angle of draw of planned longwall subsidence.

Areas of planned subsidence are within the angle of draw of all longwalls depicted on Exhibits 3-3 through 3-9. It is not expected that any diminution of the land use will occur as a result of subsidence. There will be no longwalling within a 45 angle of draw under any areas where subsidence could cause damage to surface facilities or features, i.e., Price Canyon. Mining under such areas will be limited to first mining or second mining with long-term stability designed into the remaining pillar size. See Chapter 6 for further discussions of subsidence mechanisms.

**Subsidence Mitigation Plan:** In the event that subsidence is observed, the following measures will be taken to evaluate the degree of damage.

1. Damage survey;
2. Pre-subsidence survey;
3. Monitoring of structural survey.



In the event of subsidence, the pre-subsidence usefulness and value of the land will be maintained. Areas impacted by subsidence caused surface cracks which are of a size and nature to cause injury or death to grazing livestock or wildlife will be restored.

Restoration will encompass backfilling cracks and recontouring the affected land surface and replacing surface water resources that are intercepted as a result of mining. Compensation for livestock which are injured or killed and restoration of any other facilities destroyed or damaged as a direct result of surface hazards caused by subsidence. Restoration shall be undertaken after the review of annual subsidence shows the surface has stabilized. All areas of needed restoration will be completed prior to bond release.

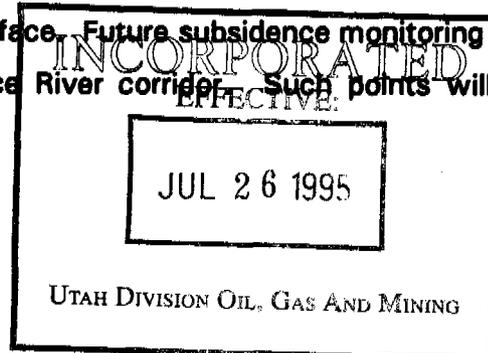
Subsidence monitoring points will be checked in the year of 1992 and will be compared with the last collection of data for detection of movement. If no substantial movement has occurred the subsidence monitoring points will be checked again in two years (1993) and then every 3 years hence. The subsidence monitoring plan will continue for at least five years following reclamation of the mined areas. Monitoring points will be checked during the summer months due to easier accessibility to the various stations which other wise could be difficult and dangerous to reach.

If subsidence is detected an investigation for surface disturbance will be conducted and the Division will be consulted for any necessary change in the subsidence monitoring schedule.

The subsidence monitoring information will be provided to the Division when the State's Annual Report is submitted.

**3.1-1(1) Future Monitoring (Revised February, 1989)**

The 1978 through 1983 experience in subsidence monitoring were instructive in indicating that subsidence impacts were not catastrophic; in fact, unnoticeable from a land use standpoint, over the majority of the affected surface. Future subsidence monitoring will be limited to control points placed within the Price River corridor. Such points will be



established at the approximate locations shown on Exhibit 3.21 B one year in advance of intended mining within these critical areas. Monitoring will take place on a yearly basis.

**3.1-2 No. 5 Mine (Revised January, 1989)**

The No. 5 Mine surface facilities and mine access openings were located in Sowbelly Gulch. These openings were sealed in 1988 along with the No. 4 Mine openings in Hardscrabble.

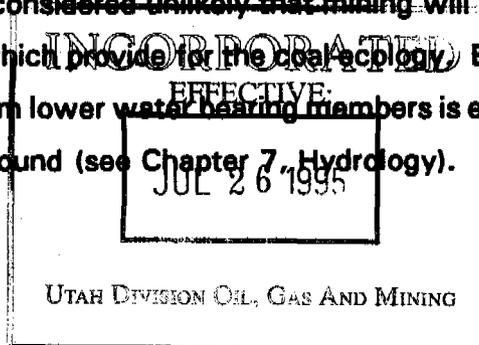
The No. 5 Mine was located within the D seam. This seam is the uppermost of the 9 coal seams on the property now considered to be economically minable. Exhibit 2-2 shows the extent of mining in the D Seam as of March, 1987.

Coal thickness assigned to No. 5 Mine D Seam reserves, were determined by the recent comprehensive drilling program and the mining experience to date in both the No. 4 and No. 5 Mines. Coal seam thickness of 5 feet or greater is considered to be economical.

Operations will be suspended in the D Seam until the completion of a cross measure drift connecting the D, A and Sub 3 seams near the Crandall Canyon shafts. This cross measure drift will allow the coal mined in the D, Cw, B and A seams to be conveyed to the preparation plant by means of the No. 3 Mine conveyor system.

Surface subsidence is expected over longwall areas. The predominant massive sandstones, present from 100 to 500 feet above the seams being mined, are not expected to break but rather to slowly bend as their weight consolidates the underlying broken sandstones and siltstones (see Chapter 6). Consequently, the effect of subsidence on surface features is expected to be minimal, with little effect on the ecology of the area.

Because of the overlying sandstones, the depth at which the proposed mining is to occur and for the reasons described above, it is considered unlikely that mining will interfere with those surface or sub-surface water tables which provide for the coal ecology. Based on experience to date, water inflow into the mine from lower water bearing members is expected to be minimal and will be totally utilized underground (see Chapter 7, Hydrology).



To ensure the long life stability required of main roadways in any seam, the entries will be columnized as much as possible (i.e., superimposed over or under similar entries driven or to be driven in the seam below or above). To protect the entries, suitable barrier pillars of coal will be left unmined on either side of one or more sets of the entries until all the minable coal has been extracted from the main (bulk) extraction areas in all seams. Entry centers and pillar dimensions on main entries reflect the effect of depth on the lowest seam to be mined and the size of entry pillar considered appropriate to give long life support to the entry at that depth.

To permit satisfactory extraction in the main (bulk) extraction areas in any seam without jeopardizing or prejudicing similar extraction areas in seams above or below, we believe that longwall mining methods should be employed as the main method for bulk extraction. This is particularly true, we believe, with the prevailing depths of cover, the small intervals between seams, and the need to avoid or minimize load transfer (through small pillars left by incomplete mining in room-and-pillar operation) from one seam to another. The history of sudden pillar unloading or "bumps" during room-and-pillar mining in similar conditions in Utah also suggest that longwall mining is safer and more predictable.

Coal recovery is limited by law to protect certain surface features. In the Mine Plan Area, the main highway through Price Canyon is an example of such legal limitation areas. Consequently, it is anticipated that in these areas, room-and-pillar mining methods will be employed or second mining with long term stability designed into the remaining pillar size.

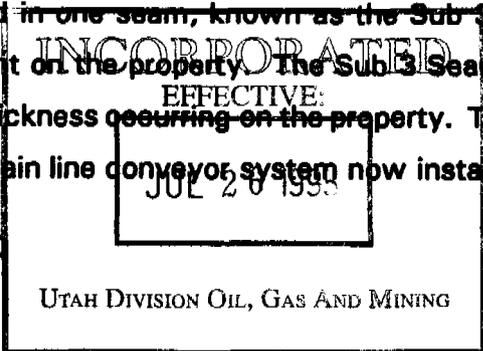
### 3.1-3 No. 3 Mine

The present surface facilities and mine openings providing access to the No. 3 Mine are located in Hardscrabble Canyon and are discussed in Section 3.3 of this volume.

The No. 3 Mine is currently being mined in one seam, known as the Sub 3 Seam, which is the lowest of the minable seams present on the property. The Sub 3 Seam is the most persistent and extensive seam of minable thickness occurring on the property. The main entries of the No. 3 Mine and the underground main line conveyor system now installed and

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3.1-10



to be extended with the development of the main entries will provide the primary means of transporting all of the coal to be mined from all of the minable seams in the reserves. For these reasons, the Sub 3 Seam is being developed first. Subsequent coal production for all seams will be transported within the coal seam being mined by underground conveyors to one or more vertical drop shafts of slopes to the No. 3 Mine Sub 3 Seam conveyor system. This existing belt system was described earlier.

The marketable tonnage of minable seams is approximately 98 million tons. The No. 3 Mine was producing approximately 700,000 tons of clean coal annually from the Sub 3 Seam until 1983. The No. 3 Mine will produce 1.6 million tons of clean coal annually starting in 1988. Production is scheduled from three units of continuous miner equipment and one longwall. The continuous miner units are employed entirely for main entry and longwall panel development.

The general mine layout and 5 year projected mining in the Sub 3 Seam are illustrated in Exhibit 3-9. This projection includes three continuous miner units and one longwall to produce 1.6 million tons of clean coal annually. The no. 3 Mine becomes very important in both access to other seams and as the source of conveyance to the Castle Gate Preparation Plant.

The extraction of the A, B, Cw, D, Sub 1 and Sub 2 Seams are connected with the Sub 3 Seam Mine Plan. The mine plans in all of these seams were laid out to correspond with the Sub 3 Seam Mine Plan. The Sub 2 Seam may be marginal as to recoverability due to splits in the seam and the Sub 1 with it's proximity of the Aberdeen Sandstone and questionable thickness.

At present, production from the No. 3 Mine is limited by three main factors.

1. The effect of the total depth of cover over the seam requires that in the long life development entries, large pillars must be left to support the overburden. These large pillars inhibit the performance of the continuous miner.
2. The overlying Aberdeen Sandstone member lies within 60 feet of the roof of the Sub 3 Seam. To date, longwall extraction has not mined out a sufficiently large area to permit this thick, strong roof member to break or to be supported

by the broken and caved immediate roof material which must swell to fill the void created by the removal of the coal. Consequently, difficulties have been experienced in maintaining longwall panel entries due to the transfer of this roof load, both ahead and to either side of the operating face.

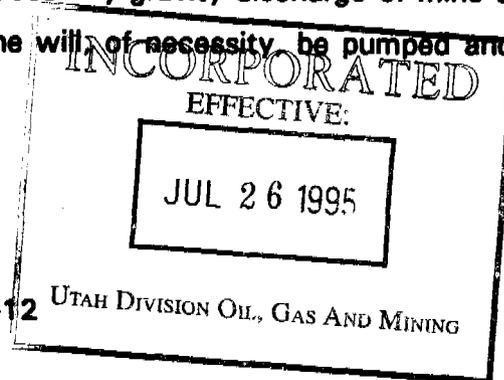
3. Heavy emissions of methane gas are experienced when mining the Sub 3 Seam. The volume of ventilating air that can be supplied through the existing number of mine entries is limited and consequently limits the number of mining units that can be accommodated in the mine. Two large diameter ventilation shafts located in Crandall Canyon in the center of the assigned reserve area and will readily permit the necessary volumes of mine ventilating air to be circulated to serve the total complement of eight producing areas.

The two large diameter shafts located in Crandall Canyon (26 foot intake and 20 foot return) presently serve as a main intake airway. Two eleven foot diameter fans mounted in parallel on the intake shaft are capable of moving large quantities of air at high heads. The fans are installed in a blowing or forced-air system discussed in Section 3.7. This shaft installation is presently only using its ventilation capability. However, the intake shaft is also equipped with a man/materials hoist and cage. The facilities will be used as primary access to the D Seam, A seam and Cw Seam in the future. The central location of Crandall Canyon shafts will improve service facilities to all the seams and minimize travel times to those areas.

Mining of the 7 seams will be in ascending and descending order with time allowed between the extraction of the different seams to ensure restoration of stable conditions.

Subsidence monitoring will be practiced as described earlier. Minimum surface disturbance is expected as a result of subsidence, and, for reasons earlier stated, the hydrologic balance is expected to be maintained and will also be monitored. Water inflow into the mine to date is minimal.

The direction of dip in the strata precludes any gravity discharge of mine drainage. Any water that will be removed from the mine will, of necessity, be pumped and can be controlled and treated as required.



### **3.1-4 Ancillary Information and Compliance Practices**

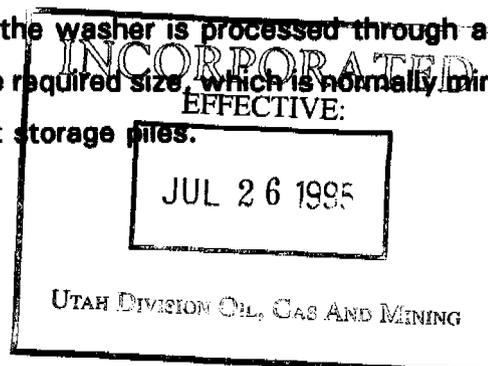
#### **3.1-4(1) Refuse Disposal Methods**

Rock refuse material and "gob" from the washing facilities will be transported from the rock bin, either by truck or belt, to the nearby Schoolhouse Canyon disposal site. This material will be compacted in layers, and then covered with soil in accordance with Mine Safety and Health Administration (MSHA) and state standards. Water runoff diversion ditches will be maintained around the disposal area. This area has been designed and operated in accordance with 30 CFR 77.214 and 77.215. About 14% of the total mining output is estimated to be reject material. Section 3.4 provides additional information concerning the Refuse Disposal Facility.

**Mine Plant Facilities:** The surface plant, which is located on the old Castle Gate townsite, includes transfer bins, crusher and screening plant, storage piles, conveyors, washing plant, settling ponds, reject bin, train loadout facilities, laboratory, shops, office, thickener tank, warehouse, bathhouse, and parking area. Portal facilities consisting of office, shop warehouse, bathhouse, storage areas, substation and parking are located at each of the No. 3 and No. 5 Mine portals. The main fan installation and man-hoist are located in Crandall Canyon.

**Coal Washing Plant and Unit Train Loading Facility (Revised January, 1989):** Coal is brought to the Castle Gate yard for processing from the various mine openings, each equipped with a 48-inch conveyor belt system. Production will move through the Utah Fuel No. 1 Mine conveyor system. The raw coal will be delivered to a transfer building and then conveyed to a run-of-mine storage pile.

The preparation plant is designed to wash the entire mine production, or sizes thereof, depending on market conditions. Coal going to the washer is processed through a dense media system for impurity removal, reduced to the required size, which is normally minus 2", dewatered and conveyed to the unit train loadout storage piles.



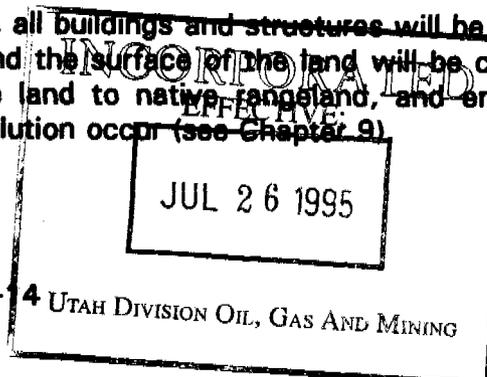
The coal washing circuit is designed so that no liquid wastes are discharged. The design also includes means for control and collection of dust to comply with existing application regulations (see Chapter 11). The unit train loadout facility consists of "an under the pile" system, using a flood gate control capable of loading at a rate of 6,000 tons per hour or greater into the railroad cars. Scales are provided within the general area where the coal will be weighted prior to shipping.

The maximum unit train for shipment East consists of fifty 100-ton railroad cars which are moved to Eastern Colorado where they are assembled into 100-car trains for final movement East. The present maximum unit train for shipment west consists of 84 100-ton railroad cars.

Solid reject material from the wash plant is trucked or conveyed into Schoolhouse Canyon where it will be deposited in compliance with 30 CFR 77.214 and 77.215.

The plan to avoid endangering human or animal life, endangering public safety, or creating a public nuisance, will include the following:

1. No surface disposal of waste water.
2. Dust suppression and collection to eliminate air contamination.
3. Noise prevention will be incorporated into the plant designs to comply with the regulation in Parts 70 and 71 of the Coal Mine Health and Safety Act of 1969.
4. There will be no liquid discharge from the washing plant, as it is based on a closed water system.
5. Water from mine dewatering activities will be treated to acceptable standards, if necessary, before returning it to the Price River after obtaining necessary permits.
6. After termination of the project, all buildings and structures will be removed. Reclaim tunnels will be filled and the surface of the land will be contoured. Revegetation should return the land to native rangeland, and ensure that minimal erosion, siltation, or pollution occur (see Chapter 9).



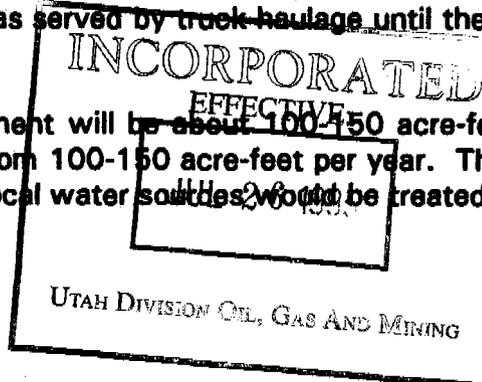
**3.1-4(2) Thick Seam Mining**

Maximum economic recovery of coal is planned. In thicker seams, this is currently considered to constitute an initial pass at the maximum cutting height of mining machines, followed by a second pass as pillars or longwall panels are recovered. Roof, rib, or bounding conditions may require a more site specific approach with the approval of the appropriate regulatory agencies.

**3.1-4(3) Pollution Control Methods (Revised January, 1989)**

Pollution control methods include the following:

1. Dust collecting systems designed to help control fugitive dust.
2. Natural drainages have been diverted away from the coal storage piles.
3. A closed water circuit will assure that no processing water will be discharged into the Price River.
4. Non-coal waste will be disposed of according to all local, state and federal regulations.
5. Utilization of the existing Price River Water Improvement District sewer system for the Castle Gate complex.
6. If water should have to be pumped out of the thickener or settling ponds it will be pumped to the emergency overflow pond. This pond is designed in accordance with recommendations of a professional soil testing firm.
7. Domestic sewage from No. 3 Portal is sent to Helper City in a line completed in Sept. 1987. The No. 5 Portal was served by truck haulage until the portal was closed in 1988.
8. Water usage during initial development will be about 100-150 acre-feet per year. Full production will require from 100-150 acre-feet per year. The only water which might be returned to local water sources would be treated water



from mine dewatering operations, for which proper provision will be made, as previously mentioned.

9. Coal dust generated underground will be controlled through the use of water sprays and proper face ventilation. Respirable dust samples will be collected for all working environments and occupations to assure compliance with current regulations.
10. Direct water application together with the use of magnesium chloride will be used to suppress dust generated by surface activities.
11. Noise surveys will be taken for all working environments and occupations to assure compliance with current regulations. Excessive noise will be eliminated or controlled by engineering to the extent practicable, exposure to noise levels above 90 dB will be designated as limited access areas.

For additional information see the individual site plans in Chapter 3 and Chapters 7, 8, 10 and 11.

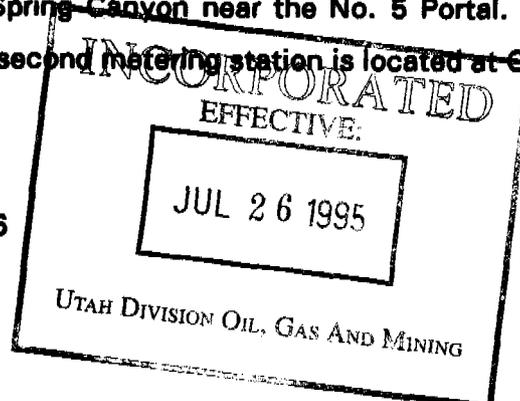
### **3.1-4(4) Abandonment and Portal Sealing**

**Structures:** It is planned to dismantle and remove all surface buildings and structures upon conclusion of operations.

**Sealing of Portals:** All portals will be sealed as part of reclamation operations. Methods will include concrete block seal, caving and backfilling.

### **3.1-4(5) Power Distribution System**

The mining complex will receive 46,000 volt power from the Utah Power & Light Martin station. Due to tariff considerations and P.S.C.U. Regulations, two metering stations were constructed. One of these is located in Spring Canyon near the No. 5 Portal. This station was energized in late May of 1975. The second metering station is located at Castle Gate.



From the Spring Canyon metering station, Price River Coal installed a 3,000' line extension to the No. 5 Mine substation. Plans have been implemented for an 8,000' line extension from the Spring Canyon metering station to the No. 3 Mine and a new substation. The 46 KV line extension and new substation was completed in 1976. The Castle Gate metering station includes a similar 46 KV line extensions. One extension goes to the Castle Gate substation located approximately 1,500 feet from the metering station. This Castle Gate substation was completed in mid 1977, and feeds the Castle Gate preparation and coal handling facilities. At the No. 3 Mine, a 10,000 KVA substation is on line and is equipped with a four circuit distribution scheme. Power enters the mine via an 800-foot borehole presently energized at 4,160 volts. When the station was completed, a second borehole was added to provide a loop feed into the mine. This voltage was converted over to 7,200 volts for mine distribution. The Castle Gate substation has 20,000 KVA transformer capacity with two distribution voltages 4160 or 7200 volts.

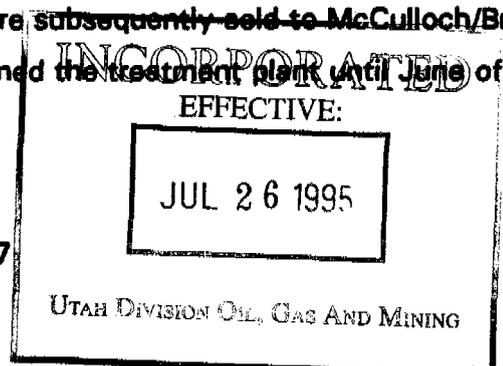
These substations will all be provided with 25 amp grounding resistors to limit ground fault current as required by MSHA. Circuit breakers will be equipped with protective relays which will exceed those requirements of Part 77 and Part 75 of the Title 30, Federal Regulations.

A schematic diagram of the Castle Gate electrical service and distribution follows as Figure No. 3.1-2.

**3.1-4(6) Water Requirements**

**Available Sources of Water:** See Chapter 7, Hydrology.

**Water Treatment Plant:** In 1973, North American Coal Company sold to the City of Castle Gate, its physical facilities for the treatment of water. The company, however, retained all rights to the water. These rights were ~~subsequently sold to McCulloch/Braztah, thence, Franklin.~~ The city operated and maintained the treatment plant until June of 1974, at which time, the facilities were abandoned.



Braztah assumed the abandoned facilities and continued to operate the plant until September of 1974, at which time, it closed down the facilities. Price River Coal has refurbished the facilities to meet State Health Department standards (completed in August 1983).

The plant has a capacity of 200 gallons per minute. The old plant had an estimated rating of 300 gpm. The new treatment plant is a unitized package plant.

This new treatment plant was used on a standby basis by Castle Gate as water is purchased from Helper City.

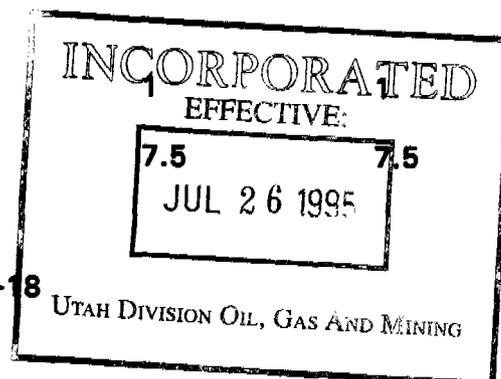
**Portable Water Supply:** The company is receiving water for culinary use at the existing No. 3, No. 5 Mines and Castle Gate Preparation Plant from the Helper City water supply.

**Sanitary Waste Disposal:** Sanitary waste disposal will be handled by using the existing Price River Water Improvement District sewage system.

**Water Use Requirements:** For purposes of estimating the average and maximum required usage of water within the mining operations during full production, the following assumptions have been made.

1. Production: 1,800,000 gross tons per year (run-of-mine).  
7,500 gross tons per day (240-day year).  
2,500 gross tons per shift (3.0 shifts per day).
2. Equipment

	Average	Maximum
<b>Continuous Miners -</b>		
Units in production	3	3
Operation hours/shift	7.5	7.5
<b>Longwall -</b>		
Units in production		
Operational hours/shift		



**Wash Plant -**

Through-put/hour	1,250	
Operational hours/day	8	8

**Water Consumption (Raw)**

	Gallons Per Operational Minute (Max.)	Gallons Per Day (Maximum)
Continuous Miners	90	81,000
Longwall	70	94,500
Wash Plant	600	288,000
<b>Total Raw Water Required</b>		<b>463,500</b>

**Culinary Water Consumption**

Mining (50 gal/man/day at 210 men)	10,500
Wash Plant (Est.)	2,000
Office (Est.)	500
<b>Total Culinary Water Required</b>	<b>13,000</b>

**Total Water Usage Per Working Day/Gallons 476,500**

**Total Usage Per Year (240 days) 114,360,000**

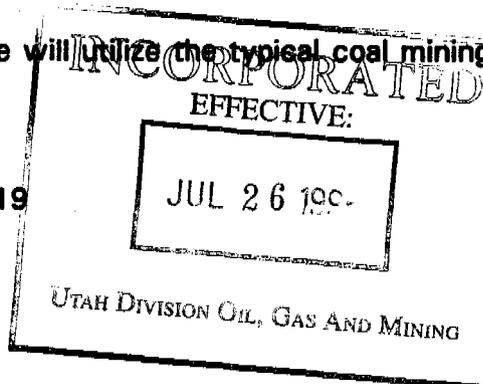
**Share Equivalent (No. Ac. Ft.) 350.0**

**3.1-4(7) Personnel Requirements**

1. Construction Stage - Castle Gate has postponed construction on Crandall Canyon.
2. Mining Stage - Total mine employees should peak at 225.
3. Type of Employees - Castle Gate will utilize the typical coal mining line and staff organization.

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release period is presented in Table 3.1-2. The estimated total cost, in 1995 dollars, is \$7,621,502. Accounting for the escalation of the reclamation cost to the end of the permit period (December 1999), the cost of reclamation is estimated at \$8,846,118. Supporting calculations are contained in Appendix 3-2.

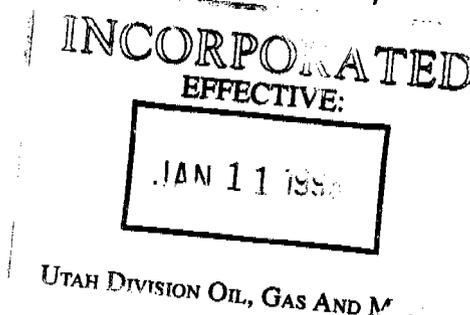
Generally, the estimated direct reclamation costs are based on values presented by R.S. Means (1995, Heavy Construction Cost Data). Even in those areas of the mine complex where reclamation is partially complete (e.g. Sowbelly, Hardscrabble No. 4 Mine Canyon), Means' values were used for the purpose of consistency. However, the cost of the portal sealing is based on the actual amount paid to Redpath Group of Phoenix, Arizona to seal the portals. The indirect costs (contingencies, engineering redesign fees, contractor profit and overhead, management fee) associated with reclamation were calculated using guidance presented by the Bond Calculation Handbook (Office of Surface Mining).

### 3.1-6 Blasting Plan

The blasting at Castle Gate Mine is incidental to the mining of coal. Blasting at the mine would be for reasons such as boulder removal from roads or a clogged material chute. No blasts would exceed five pounds.

#### 3.1-6(1) Blaster Certification

Castle Gate Mine will use certified blasters for all surface blasting. Training for these blasters is given by the College of Eastern Utah in a program which is approved by the Utah Division of Oil, Gas and Mining (UDOGM). The certificates of training for blasters are on file in the Health and Safety Department at the Castle Gate Mine offices in Hardscrabble Canyon.



Dump Charges to an approved land fill are estimated at:

$$27 \text{ cf/cy} \times \frac{1 \text{ cy}}{27 \text{ cf}} = \$0.37/\text{cf}$$

**THEREFORE:**

Demolition and landfill unit cost for steel:

$$\$0.30/\text{cf} + \$0.37/\text{cf} = \$0.67/\text{cf}$$

Demolition and landfill unit cost for concrete:

$$\$0.46/\text{cf} + \$0.37/\text{cf} = \$0.83/\text{cf}$$

**3.1-5(2) Portal Sealing**

The cost of sealing the portals is based on the mine providing the labor and material for the block walls. A contractor will be responsible for the pneumatic backfilling, hoist disassembly, plenum removal and various other miscellaneous work associated with the job. The following price has been obtained from a contractor, Redpath from Arizona, and based on actual cost.

Pneumatic Backfill Closure (Drift Openings) Mobilization/Demobilization	\$ 6,744
Setup/Teardown of Backfill plant (3 separate setups are needed to backfill 9 openings)	5,940
Backfill Entries 3500 Tons x \$7.25/Ton	<u>25,375</u>
<b>Subtotal:</b>	<b>\$ 38,059</b>

Labor & Materials for Concrete Block Seal

Build Wall (7' x 14') 254 Blocks @ \$1.40  
Labor - 2 men, 8 shift (\$261/man/day)

**INCORPORATED**  
EFFECTIVE:

JUL 26 1995

UTAH DIVISION OIL, GAS AND MINING

<b>Sealing Wall</b>	
25 Bags Mortar/Cement mix (80 lb/bag) @ \$3.90 bag	97
Labor - 2 men, 2 shift (\$261/man/day)	1,044
<b>Install Pipes</b>	
50 ft 4" pipe @ \$ 5/ft	250
50 ft 1" pipe @ \$ 4/ft	<u>200</u>
<b>Total:</b>	<b>\$6,122/seal</b>
<b>\$ 6,122/seal X 9 Seals =</b>	<b><u>\$ 55,098</u></b>
<b>TOTAL COST</b>	<b>\$ 93,157</b>

$\$38,059/9$  (backfill costs) +  $\$55,098/9$  (labor & materials) =  $\$10,351$  per seal

### 3.1-5(3) Grading

Cost figures for grading were obtained from the 1991 Means Site Work Cost Data.

The assumptions made are:

1. That the equipment used would be:
  - (2) Scrapers (11CY) capable of moving 3,000 cy/day @ \$2.22/cy
  - (1) Dozer (D7) capable of moving 700 cy/day @ \$1.23/cy
2. Generally at least one foot thickness of material will have to be moved over the entire disturbed area (1,614 cy/acre).
3. All materials will have to be handled by the scrapers and the dozer, resulting in a cost per cubic yard = \$3.45 and the cost per acre = \$5,568.30/acre.

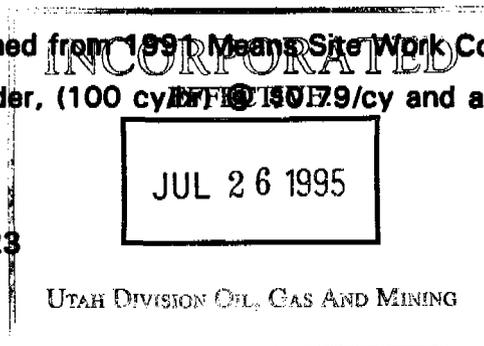
### 3.1-5(4) Re-Soiling

Cost figures for topsoil placement obtained from 1991 Means Site Work Cost Data.

Loading of material utilizing a 3 CY loader, (100 cy/hr @ \$10.79/cy and a 16.5 cy dump trailer.

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Distance (Mile)	Dump Trailer \$/cy	Total Cost (\$/cy) Loader & Dump Trailer
1	2.13	2.92
2	2.63	3.42
3	3.08	3.87
4	3.45	4.24
5	5.50	6.29
10	7.25	8.04
20	10.95	11.74

**Spreading** - Using landscaping figures from the 1991 Means Site Work Cost Data for spreading loam on slopes using a Dozer (200hp) \$2.16/cy.

Castle Gate's need for topsoil has been reduced significantly due to favorable test results on the refuse piles. Only 6" of material will be placed on refuse piles and areas of Hardscrabble and Sowbelly Canyon which were disturbed prior to 1976 and will not revegetate with soil amendments alone.

**3.1-5(5) Revegetation Cost**

Revegetation costs are primarily derived from recent experience and actual price for material. Factors are considered for fertilizing, seeding and mulching, shrub or tree planting and evaluation of the plantation.

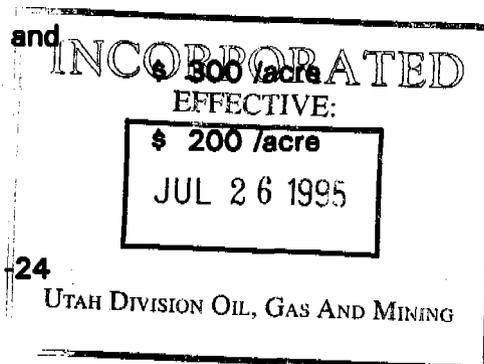
**Fertilizing:**

Labor & Material \$ 250 /acre

**Seeding & Mulching:**

Seed Mix Prices are derived from local and regional seed supply companies

Seed bed preparation



*Superseded  
by next page*

June 1995

Hydroseeder with mulch  
(labor & material)

\$1,200 /acre

TOTAL:

\$1,700 /acre

**Planting Trees and Shrubs:**

Material costs, obtained from the State Forest Nursery  
prices and approximately \$0.85/seedling.

Material

450 plants/acre x \$0.85/seedling

\$ 382 /acre

Labor

Planting equal to cost of stock

\$ 382 /acre

TOTAL:

\$ 764 /acre

Evaluation of Success of Plantations:

Based on present consultant costs,

\$50 /acre will be used for planting evaluation.

\$ 50 /acre

TOTAL PER ACRE REVEGETATION COSTS:

\$2,764 /acre

**Soil Amendments & Test:**

Based on actual cost of labor and  
analysis with an estimate on materials.

\$1,200 /2.5 acres

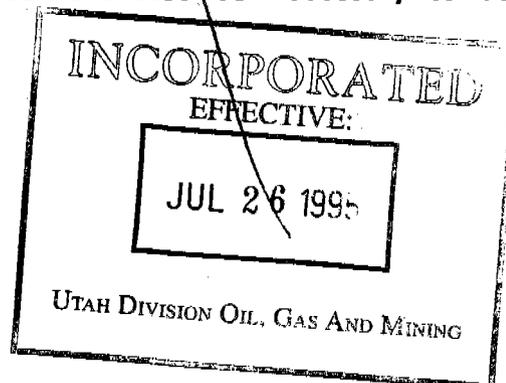
**3.1-5(6) Maintenance and Contingency**

Fifteen percent (15%) of total cost will be added to cover post reclamation  
maintenance, monitoring and unforeseen problems.

Upon bond release, permanent structures such as diversion ditches, sediment ponds,  
impoundments and/or treatment facilities will be renovated as necessary to design  
specifications prior to site abandonment.

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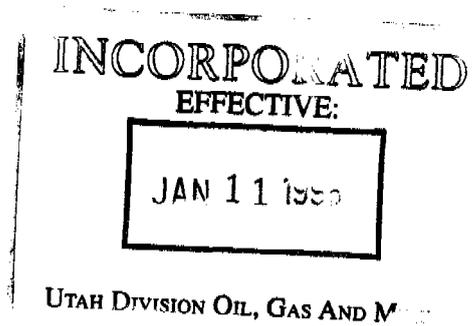
3.1-25



**TABLE 3.1-2**  
**SUMMARY OF BONDING AND RECLAMATION COSTS**  
**(Revised August 1995)**

<b>SITE</b>	<b>DISTURBED ACRES</b>	<b>BONDING AMOUNT<sup>(a)</sup></b>
Sowbelly Canyon (Gulch)	21	\$770,721
Hardscrabble Canyon	39	\$1,071,588
Castle Gate Preparation Plant, Refuse Disposal Facility, and Unit Train Loadout	74	\$3,554,902
Adit No. 1	3	\$166,130
Gravel Canyon	5	\$252,302
Crandall Canyon	<u>28</u>	<u>\$3,030,475</u>
<b>TOTAL</b>	<b>170</b>	<b>\$8,946,118</b>

<sup>(a)</sup> All reclamation costs have been escalated from January 1995 dollars to December 1999 dollars using an average annual escalation of 2.5%. See Appendix 3-2 for supporting calculations.



**3.1-5(7) Reclamation Timetable**

	<b><u>Phase I</u></b>	<b><u>Weeks</u></b>
1.	Demolition - Structure Removal	1 - 12
2.	Portal Sealing	12 - 18
3.	Grading	12 - 20
4.	Seed Bed Preparation & Topsoil Redistribution	15 - 21
5.	Seeding & Mulching	18 - 22 (after Oct 1)
6.	Vegetation, water monitoring and pond maintenance	2 - 10 years after seeding (until bond release)
	<b><u>Phase II</u></b>	
7.	Pond Reclamation & grading	1 - 4
8.	Seed Bed Preparation & Topsoil Redistribution	3 - 5
9.	Seeding & Mulching	4 - 6
10.	Reclamation Monitoring	Until Bond Release

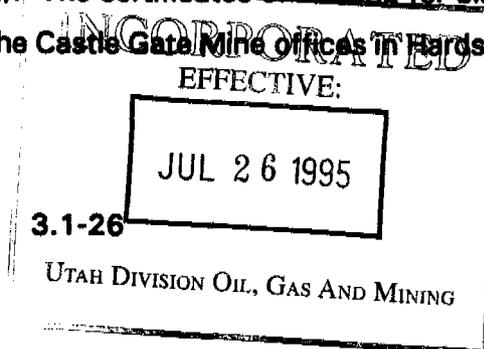
**3.1-6 Blasting Plan**

The blasting at Castle Gate Mine is incidental to the mining of coal. Blasting at the mine would be for reasons such as boulder removal from roads or a clogged material chute. No blasts would exceed five pounds.

**3.1-6(1) Blaster Certification**

Castle Gate Mine will use certified blasters for all surface blasting. Training for these blasters is given by the College of Eastern Utah in a program which is approved by the Utah Division of Oil, Gas and Mining (UDOGM). The certificates of training for blasters are on file in the Health and Safety Department at the Castle Gate Mine offices in Hardscrabble Canyon.

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**3.1-6(2) Blast Design**

No blasting design is required for blasts less than five pounds. Castle Gate Mine does not anticipate any blasts five pounds or greater. If future construction necessitates blasts greater than five pounds, a blast design will be submitted to UDOGM thirty days prior to the proposed blast.

**3.1-6(3) Pre-Blasting Survey**

No pre-blasting survey is necessary for blasts less than five pounds. Castle Gate Mine does not anticipate a blast using more than five pounds of explosives, therefore, no preblasting survey is required. However, if a blast is planned involving five pounds or greater of blasting agent, a pre-blast survey will be done according to the current regulations.

**3.1-6(4) Blasting Schedule**

All blasting will be done between sunrise and sunset. Since the blasting will be done on an infrequent emergency basis, the blasting is classified as unscheduled. Prior to detonation of the unscheduled blast, residents within a one-half mile radius of the blast will be notified by audible signal. The area will be cleared of all unauthorized personnel and access blocked at points one-half mile from the point of the blast. The reason for the unscheduled blast will be recorded and placed in a file kept in the mine Health and Safety Office.

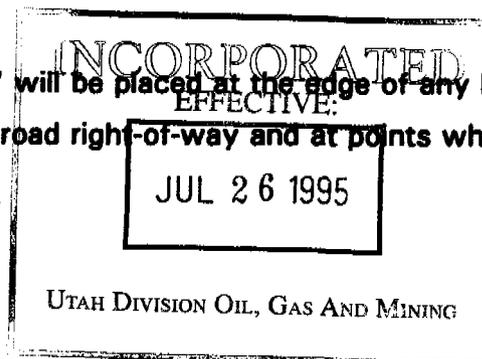
Since blasting will be done infrequently and unscheduled no blasting schedule will be published.

**3.1-6(5) Blasting Signs, Warnings, and Access Control**

Blasting Signs which read "Blasting Area" will be placed at the edge of any blasting area which comes within 100 feet of any public road right-of-way and at points where any

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3.1-27

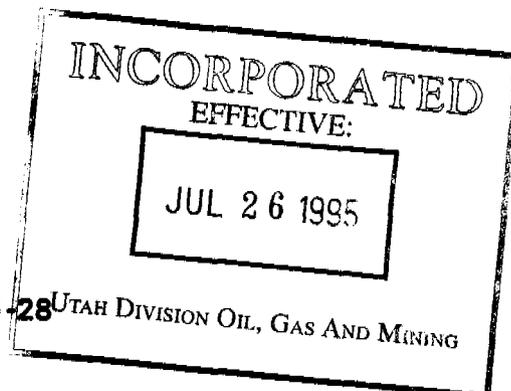


other road provides access to the area. Additionally, at all public roads or highways which access the permit area, a sign which states, "Warning! Explosives in Use" will be posted.

The audible warning signal of two 20 second audible signals with a 10 second pause in between signals and a 20 second audible signal for all clear will be narrated on the "Warning" sign. The audible warning signal will have a range of 1/2 mile from the blast. Each person who lives or regularly works within one-half mile of the blast area will be notified of the meaning of the audible warning signals.

**3.1-6(6) Control of Adverse Blasting Effects**

Since the maximum amount of blasting agent to be used in any detonation is five pounds, no damage to any public or private property outside the permit area is expected. The small five pound blasts will have no impact on any underground mine or change the course, channel or availability of surface or groundwater outside the permit area. The small blasts will not require monitoring for airblast or ground vibration.



**FIGURE 3.1-1  
SUBSIDENCE CONTROL**

Schoolhouse Refuse #1211-UT-09-0027  
For #3 & #5

ORIGINAL POINTS									SEQUENCE NO. 4									DIFFERENCE		
INST POINT	BACK SITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	INST POINT	BACK SITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	NORTHING	EASTING	ELEVATION
SCP #1	BC #1	111	3	5/16/80	No. 1	511369.033	2178901.782	6246.98	SCP #1	BC-1	111	13	4/22/82	No. 1	511368.944	pr a2.ac27 W	6249.89	-0.089	-0.227	-0.09
SCP #1	BC #1	111	3	5/16/80	No. 2	511388.444	2178872.843	6249.79	SCP #1	BC-1	111	13	4/22/82	No. 2	511388.381	2178872.591	6249.76	-0.063	-0.252	-0.53
SCP #1	BC #1	111	3	5/16/80	No. 3	511410.043	2178830.563	6250.04	SCP #1	BC-1	111	14	4/22/82	No. 3	511409.705	2178830.574	6249.98	-0.338	-0.011	-0.06
SCP #1	BC #1	111	3	5/16/80	No. 4	511432.648	2178789.315	6252.20	SCP #1	BC-1	Buried by Dozer									
SCP #1	BC #1	111	4	5/16/80	No. 5	511456.408	2178987.766	6297.04	SCP #1	BC-1	Buried by Dozer									
SCP #1	BC #1	111	4	5/16/80	No. 6	511483.047	2178937.745	6296.77	SCP #1	BC-1	111	12	4/22/82	No. 6	511482.974	2178937.524	6296.359	-0.073	-0.219	-0.39
SCP #1	BC #1	111	4	5/16/80	No. 7	511508.390	2178889.360	6295.76	SCP #1	BC-1	111	12	4/22/82	No. 7	511508.263	2178888.948	6295.322	-0.129	-0.4	-0.44
SCP #1	BC #1	111	4	5/16/80	No. 8	511539.613	2178843.744	6296.94	SCP #1	BC-1	Buried by Dozer									
SCP #1	BC #1	111	3	5/16/80	No. 9-Pipe	511408.616	2178840.706	6253.22	SCP #1	BC-1	111	13	4/22/82	No. 9	511408.242	2178840.582	6252.89	-0.374	-0.124	-0.6
SCP #1	BC #1	111	4	5/16/80	No.10-Pipe	511414.531	2178830.752	6254.18	SCP #1	BC-1	111	14	4/22/82	No.10	511414.176	2178830.836	6254.03	-0.355	0.084	-0.15
SCP #1	BC #1	111	4	5/16/80	No.11-Pipe	511419.211	2178821.941	6253.63	SCP #1	BC-1	111	14	4/22/82	No.11	511418.875	2178821.905	6253.28	-0.336	-0.036	-0.35
SCP #1	BC #1	111	5	5/16/80	No.12-Pipe	511468.748	2178948.643	6296.06	SCP #1	BC-1	111	13	4/22/82	No.12	511468.559	2178948.444	6295.86	-0.189	-0.199	-0.2
SCP #1	BC #1	111	5	5/16/80	No.13-Pipe	511492.487	2178910.464	6295.99	SCP #1	BC-1	111	12	4/22/82	No.13	511492.521	2178910.137	6295.51	0.034	-0.327	-0.48
SCP #1	BC #1	111	5	5/16/80	No.14-Pipe	511517.604	2178868.176	6294.70	SCP #1	BC-1	111	12	4/22/82	No.14	511517.635	2178867.915	6294.16	0.031	-0.261	-0.54

(Shot on Ground)

JUL 6 1995  
UTAH DIVISION OF GEOGRAPHIC INFORMATION SYSTEMS  
NCCORPORATED  
EFFICIENT

SUBSIDENCE CONTROL FIGURE 3.1-1

Note: Subsidence Control Points from No. 3 Mine, "D" Seam, used as original control points for No. 3 Mine, Sub 3 Seam, are designated by a "-D" behind the number.

Location: Bear & Crandall Canyons  
Mine No. 3

ORIGINAL PTS							SEQUENCE NO. 11							DIFFERENCE						
INST POINT	BACKSITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	INST POINT	BACKSITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	NORTHING	EASTING	ELEVATION
CC #6	TR #2	59	46	6/30/78	NE Ref.Pt.	510299.614	2172041.368	7739.12	CC #6	TR #2	125	55	7/14/82	NE Ref.Pt.	510300.000	2172040.996	7740.36	0.386	-0.382	1.24
CC #6	TR #2	59	46	6/30/78	SE Ref.Pt.	510160.071	2172130.248	7788.86	CC #6	TR #2	125	54	7/14/82	SE Ref.Pt.	510160.605	2172130.075	7788.81	0.534	-0.173	-0.05
CC #6	TR #2	59	47	6/30/78	NW Ref.Pt.	509676.731	2169644.084	7765.99	CC #6	TR #2	125	58	7/14/82	NW Ref.Pt.	509676.034	2169645.953	7765.61	0.103	0.169	-0.38
CC #6	TR #2	59	47	6/30/78	SW Ref.Pt.	509506.930	2169615.023	7780.30	CC #6	TR #2	125	57	7/14/82	SW Ref.Pt.	509507.024	2169615.205	7780.95	0.094	0.182	0.63
CC #6	TR #2	59	48	6/30/80	'1'	509977.727	2171426.259	7179.63	CC #6	TR #2	125	63	7/14/82	'1'	509977.746	2171425.543	7177.68	0.019	0.716	-0.95
CC #6	TR #2	76	3	8/15/78	'8'	509778.333	2170034.385	7288.38	CC #6	TR #2	125	66	7/14/82	'8'	509778.569	2170034.828	7289.09	0.236	0.443	0.71
CC #6	TR #2	76	3	8/15/78	'3'	509928.010	2171234.918	7005.91												
CC #6	TR #2	59	46	6/30/78	No. 1	509167.658	2172017.423	7880.87	CC #6	TR #2	125	54	7/14/82	No. 1	509167.802	2172017.474	7880.60	0.144	0.051	-0.27
CC #6	TR #2	59	46	6/30/78	No. 3	508629.942	2171337.611	7887.10	CC #6	TR #2	125	54	7/14/82	No. 3	508630.915	2171337.533	7886.71	0.073	-0.078	-0.39
CC #6	TR #2	59	46	6/30/78	No. 4	508864.882	2170850.275	7809.29	CC #6	TR #2	125	55	7/14/82	No. 4	508864.910	2170850.476	7809.29	0.028	0.201	0
CC #6	TR #2	59	47	6/30/78	No. 4A	511119.971	2172666.644	7585.49	CC #6	TR #2	125	95	7/14/82	No. 4A	511120.104	2172667.343	7585.35	0.133	0.699	-0.14
CC #6	TR #2	59	47	6/30/78	No. 4B	510853.088	2171679.689	7534.55	CC #6	TR #2	125	57	7/14/82	No. 4B	510856.885	2171677.770	7532.72	1.797	-1.919	-1.83
CC #6	TR #2	76	3	8/15/78	No. 4K	510547.879	2170534.805	6900.12	CC #6	TR #2	125	67	7/14/82	No. 4-K	510547.812	2170535.082	6899.51	-0.067	0.277	-0.61
CC #6	TR #2	59	48	6/30/78	No. 4P	510222.943	2169320.713	7767.68	CC #6	TR #2	125	60	7/14/82	No. 4-P	510222.262	2169320.760	7767.21	-0.681	0.047	-0.47
CC #6	TR #2	59	46	6/30/78	No. 5	509164.707	2179459.797	7663.00	CC #6	TR #2	125	56	7/14/82	No. 5	509164.812	2179459.367	7663.44	0.105	0.07	-0.36
BZ-93	TR #2	76	33	8/18/78	No. 5-D	510532.170	2164001.365	7889.30	BZ-93	TR #2	95	47	5/26/82	No. 5-D	510532.986	2164001.390	7889.24	-0.084	0.025	-0.06
CC #6	TR #2	59	47	6/30/78	No. 6	509317.230	2170097.306	7702.09	CC #6	TR #2	125	56	7/14/82	No. 6	509317.294	2170097.432	7701.69	0.064	0.126	-0.4
BZ-93	TR #2	76	33	8/18/78	No. 6-B	510359.645	2163079.204	7878.70	BZ-93	TR #2	95	47	5/26/82	No. 6-B	510359.718	2163079.193	7878.75	0.073	-0.101	0.05
CC #6	TR #2	59	47	6/30/78	No. 7	509345.986	2169734.645	7797.09	CC #6	TR #2	125	57	7/14/82	No. 7	509346.174	2169734.726	7796.87	0.188	0.081	-0.22
BZ-49A	BZ-49	76	31	8/17/78	No. 7-D	510234.476	2162146.057	8406.50	BZ-49A	BZ-49A	95	43	5/25/82	No. 7-D	510234.402	2162147.947	8407.15	-0.074	-0.11	0.65
CC #6	TR #2	59	48	6/30/78	No. 8	509961.308	2169594.824	7739.91	CC #6	TR #2	125	58	7/14/82	No. 8	509961.824	2169595.179	7739.64	0.016	0.355	-0.27
BZ-49A	BZ-49	76	31	8/17/78	No. 8-D	512042.733	2159516.154	8069.05	BZ-49A	BZ-49	95	41	5/25/82	No. 8-D	512042.399	2159515.183	8069.11	-0.036	0.029	0.06
CC #6	TR #2	59	48	6/30/78	No. 9	510260.238	2169484.839	7733.09	CC #6	TR #2	125	59	7/14/82	No. 9	510259.565	2169485.083	7732.74	-0.673	0.244	-0.35
BZ-49A	BZ-49	76	32	8/17/78	No. 9-D	512272.222	2160918.429	8068.79	BZ-49A	BZ-49	95	43	5/25/82	No. 9-D	512279.301	2160918.513	8068.64	-0.324	0.023	-0.15
BZ-93	TR #2	76	15	7/10/79	No. 10	512055.447	2160893.745	7236.28	BZ-93	TR #2	125	53	7/12/82	No. 10	512055.572	2160894.067	7236.95	0.125	0.322	-0.23
BZ-49A	BZ-49	76	31	8/17/78	No. 10-D	511630.363	2161632.882	8468.74	BZ-49A	BZ-49	95	41	5/25/82	No. 10-D	511630.115	2161653.691	8468.51	-0.248	0.019	-0.23
BZ-93	TR #2	76	5	11/9/78	No. 11	512562.776	2160576.204	6799.60	BZ-93	TR #2	125	53	7/12/82	No. 11	512564.233	2160576.320	6800.03	0.507	-0.194	0.43
BZ-93	TR #2	76	33	8/18/78	No. 11-D	511111.179	2163521.588	7852.85	BZ-93	TR #2	95	46	5/26/82	No. 11B	511111.074	2163921.447	7852.97	-0.104	-0.142	0.12
BZ-93	TR #2	76	2	3/29/78	No. 12	512183.914	2163679.333	7462.25	BZ-93	TR #2	125	53	7/12/82	No. 12	512183.872	2163679.348	7462.27	-0.042	0.009	0.02
BZ-93	TR #2	76	33	8/18/78	No. 12-D	511629.146	2163374.140	8170.79	BZ-93	TR #2	95	46	5/26/82	No. 12-D	511634.053	2163390.906	8170.61	-0.093	-0.237	-0.09
CC #6	TR #2	59	44	3/29/78	No. 13	512312.324	2171182.239	6898.45	CC #6	TR #2	125	60	7/14/82	No. 13	512313.269	2171141.119	6896.50	0.945	-1.17	-1.95
BZ-49A	BZ-49	76	31	8/17/78	No. 13-D	512049.144	2161834.775	8583.78	BZ-49A	BZ-49	95	42	5/25/82	No. 13-D	512098.792	2161835.292	8583.76	-0.362	0.557	-0.62
CC #6	TR #2	59	44	6/29/78	No. 14	510695.473	2168826.619	7577.84	CC #6	TR #2	125	62	7/14/82	No. 14	510695.624	2168826.673	7576.74	0.151	0.054	-0.3
BZ-49A	BZ-49	76	32	8/17/78	No. 14-D	512240.021	2160891.741	8135.91	BZ-49A	BZ-49	95	42	5/25/82	No. 14-D	512249.904	2160891.264	8135.76	-0.117	0.123	0.15
CC #6	TR #2	59	44	6/29/78	No. 15	512192.149	2163329.770	6704.21												
BZ-49A	BZ-49	76	32	8/17/78	No. 15-D	512551.700	2169852.009	8330.62	BZ-49A	BZ-49	95	42	5/25/82	No. 15-D	512551.767	2160052.547	8330.73	0.067	0.438	0.11
CC #6	TR #2	59	44	6/29/78	No. 16	511184.228	2168396.444	7549.64	CC #6	TR #2	125	61	7/14/82	No. 16	511184.275	2168396.468	7549.47	0.147	0.024	-0.17
CC #6	TR #2	59	44	6/29/78	No. 17	512907.371	2172528.095	6632.18	BZ-60	BZ-52	125	70	8/10/82	No. 17	512907.209	2172528.070	6631.92	-0.162	-0.025	-0.26
BZ-93	BZ-43	95	10	6/19/80	No. 17-D	512054.754	2163041.921	8425.34	BZ-93	TR #2	95	46	5/26/82	No. 17-D	512054.462	2163041.993	8425.16	-0.292	0.072	-0.18
CC #6	TR #2	59	45	6/29/78	No. 18	511549.208	2169808.829	6906.34	CC #6	TR #2	125	64	7/14/82	No. 18	511549.390	2169808.829	6906.29	0.182	-0.007	-0.05
BZ-49A	BZ-49	95	15	6/24/80	1/4WC No. 18-D	512925.468	2161693.859	8593.99	BZ-49A	BZ-49	95	41	5/25/82	1/4WC No. 18D	512925.251	2161693.566	8593.95	-0.217	-0.293	-0.04
CC #6	TR #2	59	45	6/29/78	No. 19	512428.204	2172693.357	6905.44	CC #6	TR #2	125	62	7/14/82	No. 19	512428.401	2172693.163	6905.47	0.197	-0.194	0.03
BZ-49A	BZ-49	95	15	6/24/80	No. 19-D	510536.621	2160844.953	8029.67	BZ-49A	BZ-49	95	43	5/25/82	No. 19-D	510536.567	2160844.325	8029.72	-0.034	-0.128	0.05
CC #6	TR #2	59	45	6/29/78	No. 20	510800.865	2170318.455	6906.91	CC #6	TR #2	125	66	7/14/82	No. 20	510800.931	2170318.670	6906.62	0.066	0.215	-0.29
BZ-49A	BZ-49	95	44	5/25/82	No. 20-D	512880.885	2159798.402	8637.46	Original											
CC #6	TR #2	59	45	6/29/78	No. 21	513181.995	2173557.120	6823.57	BZ-60	BZ-52	125	70	8/10/82	No. 21	513181.230	2173556.786	6823.47	-0.765	-0.334	-0.1
BZ-49A	BZ-49	95	44	5/25/82	No. 21-D	512859.603	2160930.044	8337.53	Original											
BZ-93	TR #2	76	1	8/19/78	No. 22	511509.507	2166882.894	7545.91	BZ-93	TR #2	125	52	7/12/82	No. 22	511509.489	2166883.223	7545.84	-0.018	0.329	-0.07

1/4 WC DISCONTINUED  
 BEAR & CRANDALL CANYONS  
 MINE NO. 3  
 SUB 3 SEAM  
 CONTROL POINTS



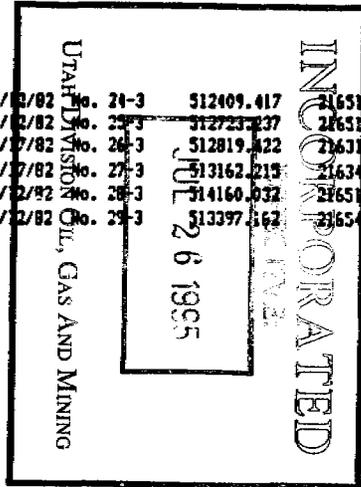


SUBSIDENCE CONTROL FIGURE 3.1-1

note: Subsidence Control Points from No. 3 Mine, Sub-3 Seam, used as original control points for No. 3 Mine, 'B' Seam, are designated by a '-3' behind the number.

Soudeley Gulch Mine No. 3

ORIGINAL PTS										SEQUENCE NO. 8					DIFFERENCE					
INST	BACKSITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	INST	BACKSITE	BOOK	PAGE	DATE	STATION	NORTHING	EASTING	ELEVATION	NORTHING	EASTING	ELEVATION
-44	BZ-43	76	34	8/28/78	No. 1	509324.557	2160328.816	7406.49												
-49A	BZ-49	76	32	8/17/78	No. 2	509707.949	2161326.856	7907.03	BZ-93A	BZ-93	95	44	5/25/82	No. 2	509708.030	2161326.969	7907.04	0.081	0.113	0.01
-93	TR-2	76	34	8/18/78	No. 3	509513.394	2162648.448	8010.19	BZ-93	TR 02	95	48	5/26/82	No. 3	509513.518	2162648.426	8009.98	0.124	-0.022	-0.21
-93	TR-2	76	34	8/18/78	No. 4	509827.183	2163950.079	7758.53	BZ-93	TR 02	95	47	5/26/82	No. 4	509827.211	2163950.109	7758.57	0.026	0.03	0.04
-93	TR-2	76	33	8/18/78	No. 5	510332.179	2164001.365	7889.30	BZ-93	TR 02	95	47	5/26/82	No. 5	510332.086	2164001.390	7889.24	-0.084	0.025	-0.06
-93	TR-2	76	33	8/18/78	No. 6	510359.645	2163079.204	7878.70	BZ-93	TR 02	95	47	5/26/82	No. 6	510359.718	2163079.103	7878.75	0.073	-0.101	0.05
-49A	BZ-49	76	31	8/17/78	No. 7	510234.476	2162148.057	8406.50	BZ-49A	BZ-49	95	43	5/25/82	No. 7	510234.602	2162147.947	8407.15	-0.074	-0.11	0.65
-49A	BZ-49	76	31	8/17/78	No. 8	512042.435	2159515.154	8069.05	BZ-49A	BZ-49	95	41	5/25/82	No. 8	512042.399	2159515.183	8069.11	-0.036	0.029	0.06
-49A	BZ-49	76	32	8/17/78	No. 9	511279.325	2160818.490	8068.79	BZ-49A	BZ-49	95	43	5/25/82	No. 9	511279.301	2160818.513	8068.64	-0.024	0.023	-0.15
-49A	BZ-49	76	31	8/17/78	No. 10	511630.363	2161653.582	8468.74	BZ-49A	BZ-49	95	41	5/25/82	No. 10	511630.115	2161653.601	8468.51	-0.248	0.019	-0.23
-93	TR-2	76	33	8/18/78	No. 11	511111.178	2163921.589	7852.85	BZ-93	TR 02	95	46	5/26/82	No. 11	511111.074	2163921.447	7852.97	-0.104	-0.142	0.12
-93	TR-2	76	33	8/18/78	No. 12	511634.146	2163391.143	8170.70	BZ-93	TR 02	95	46	5/26/82	No. 12	511634.053	2163390.906	8170.61	-0.093	-0.237	-0.09
-49A	BZ-49	76	31	8/17/78	No. 13	512099.144	2161834.735	8583.78	BZ-49A	BZ-49	95	42	5/25/82	No. 13	512098.782	2161835.292	8583.76	-0.362	0.557	-0.02
-49A	BZ-49	76	32	8/17/78	No. 14	512250.021	2160891.141	8135.91	BZ-49A	BZ-49	95	42	5/25/82	No. 14	512249.904	2160891.264	8135.76	-0.117	0.123	-0.15
-49A	BZ-49	76	32	8/17/78	No. 15	512551.700	2160052.109	8330.62	BZ-49A	BZ-49	95	42	5/25/82	No. 15	512551.767	2160052.547	8330.73	0.067	0.438	0.11
-93	BZ-43	95	10	6/20/80	No. 17	512054.754	2163041.921	8425.34	BZ-93	TR 02	95	46	5/26/82	No. 17	512054.462	2163041.993	8425.16	-0.292	0.072	-0.18
-49A	BZ-49	95	15	6/24/80	1/4MC No.13	512925.468	2161693.859	8593.99	BZ-49A	BZ-49	95	41	5/25/82	1/4MC No.18	512925.251	2161693.566	8593.95	-0.217	-0.293	-0.04
-49A	BZ-49	95	15	6/24/80	No. 19	510536.621	2160844.953	8029.67	BZ-49A	BZ-49	95	43	5/25/82	No. 19	510536.567	2160844.825	8029.72	-0.054	-0.128	0.95
-49A	BZ-49	95	44	5/25/82	No. 20	512880.885	2159798.402	8637.46												
-49A	BZ-49	95	44	5/25/82	No. 21	512859.603	2160930.044	8337.53												
-49A	BZ-49	95	45	5/25/82	No. 22	513327.290	2160874.471	8568.62												
-49A	BZ-49	95	45	5/25/82	No. 23	512638.625	2162089.709	8665.14												
-93	TR-2	76	1	8/09/78	No. 24-3	512409.538	2165128.806	7928.97	BZ-93	TR 02	125	51	7/12/82	No. 24-3	512409.417	2165128.962	7928.87	-0.121	0.156	-0.1
-93	TR-2	76	1	8/09/78	No. 25-3	512723.149	2165162.407	8024.63	BZ-93	TR 02	125	51	7/12/82	No. 25-3	512723.237	2165162.813	8024.51	0.088	0.406	-0.12
-93A	BZ-92	76	25	7/19/79	No. 26-3	512819.647	2163170.438	8306.18	BZ-93A	BZ-93	141	1	7/7/82	No. 26-3	512819.822	2163170.475	8306.13	-0.225	0.037	-0.05
-93A	BZ-92	76	25	7/19/79	No. 27-3	513162.365	2163467.422	8007.49	BZ-93A	BZ-93	141	2	7/7/82	No. 27-3	513162.215	2163467.419	8007.47	-0.15	-0.003	-0.02
-93	TR-2	94	20	6/23/80	No. 28-3	514160.220	2165194.476	7804.44	BZ-93	TR 02	125	52	7/12/82	No. 28-3	514160.032	2165194.610	7804.33	-0.188	0.134	-0.11
-93	TR-2	94	20	6/23/80	No. 29-3	513397.444	2165402.763	8111.01	BZ-93	TR 02	125	51	7/12/82	No. 29-3	513397.162	2165402.745	8110.97	-0.282	-0.018	-0.04
-93	TR-2	95	46	5/26/82	No. 30	511485.195	2162327.624	8314.16												
-93	TR-2	95	47	5/26/82	No. 31	510850.477	2162625.296	8089.11												
-93	TR-2	95	48	5/26/82	No. 32	510102.611	2162500.579	8172.56												
-93A	BZ-92	125	35	11/5/81	No. 40-3	514062.457	2163216.980	7864.97	BZ-93A	BZ-93	141	2	7/17/82	No. 40-3	514062.356	2163216.701	7864.99	-0.101	-0.179	0.02
-93A	BZ-92	125	26	5/28/81	No. 41-3	514094.760	2163627.781	7591.08	BZ-94A	BZ-93	141	2	7/17/82	No. 41-3	514094.790	2163627.523	7591.09	0.03	-0.258	0.01
-93A	BZ-92	94	48	11/5/80	No. 42-3	515060.511	2164507.018	7015.02	BZ-93A	BZ-93	141	3	7/17/82	1/4MC 042-3	515060.213	2164507.101	7015.01	-0.298	0.083	-0.01
-93A	BZ-92	94	48	11/5/80	No. 43-3	515239.200	2165332.436	7601.34	BZ-93A	BZ-93	141	1	7/17/82	No. 43-3	515239.222	2165331.965	7601.36	0.022	-0.471	0.02
-61F	BZ-93B	94	69	5/5/81	No. 44-3	515059.441	2164828.032	7347.85	BZ-93A	BZ-93	141	1	7/17/82	No. 44-3	515059.827	2164827.940	7349.27	0.386	-0.092	1.42
-93	CC 06	125	8	5/13/81	No. 74-3	511724.503	2164790.528	8157.80	BZ-93	TR 02	125	51	7/12/82	No. 74-3	511724.636	2164790.452	8157.86	0.133	-0.076	0.06



BRAZTAH Power System

3.1-50

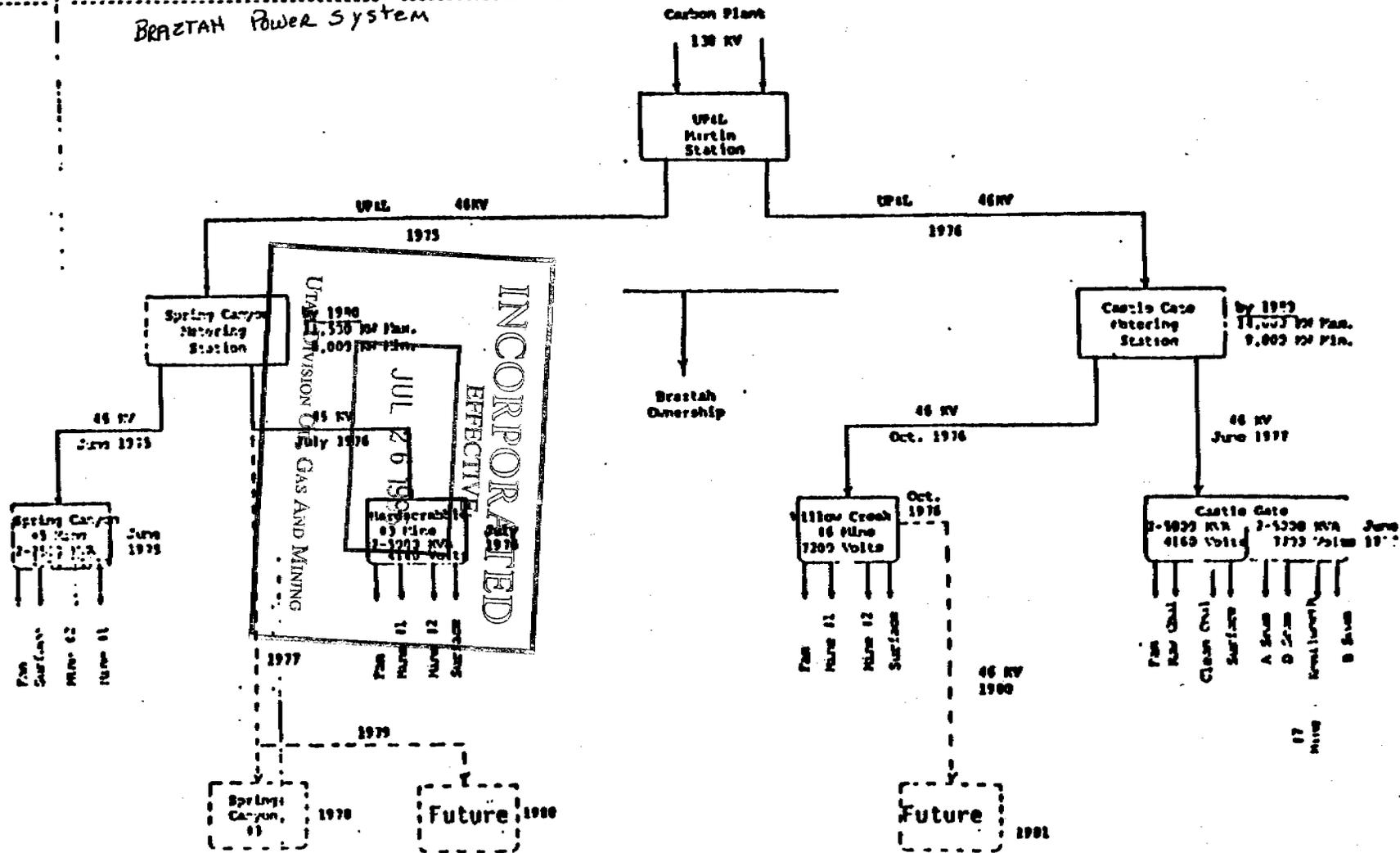
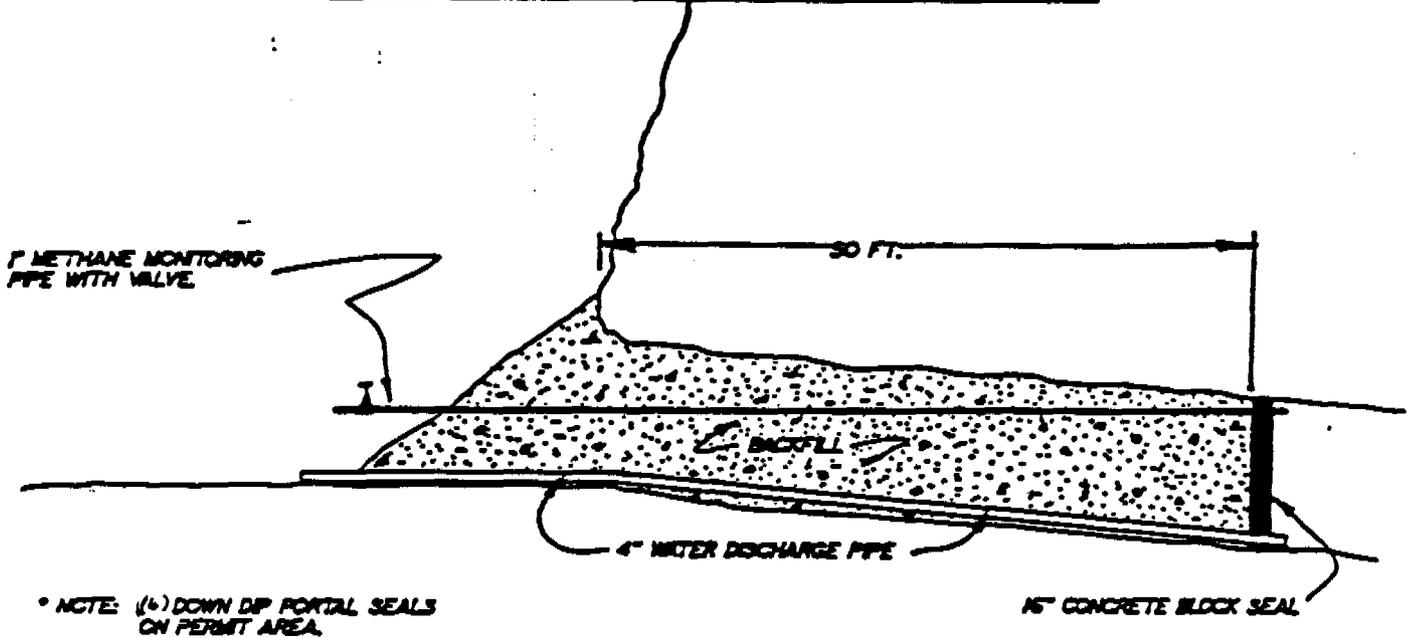


Figure 3.1-2

### PORTAL SEALING - DOWN DIP METHOD



INCORPORATED  
EFFECTIVE:

JUL 26 1995

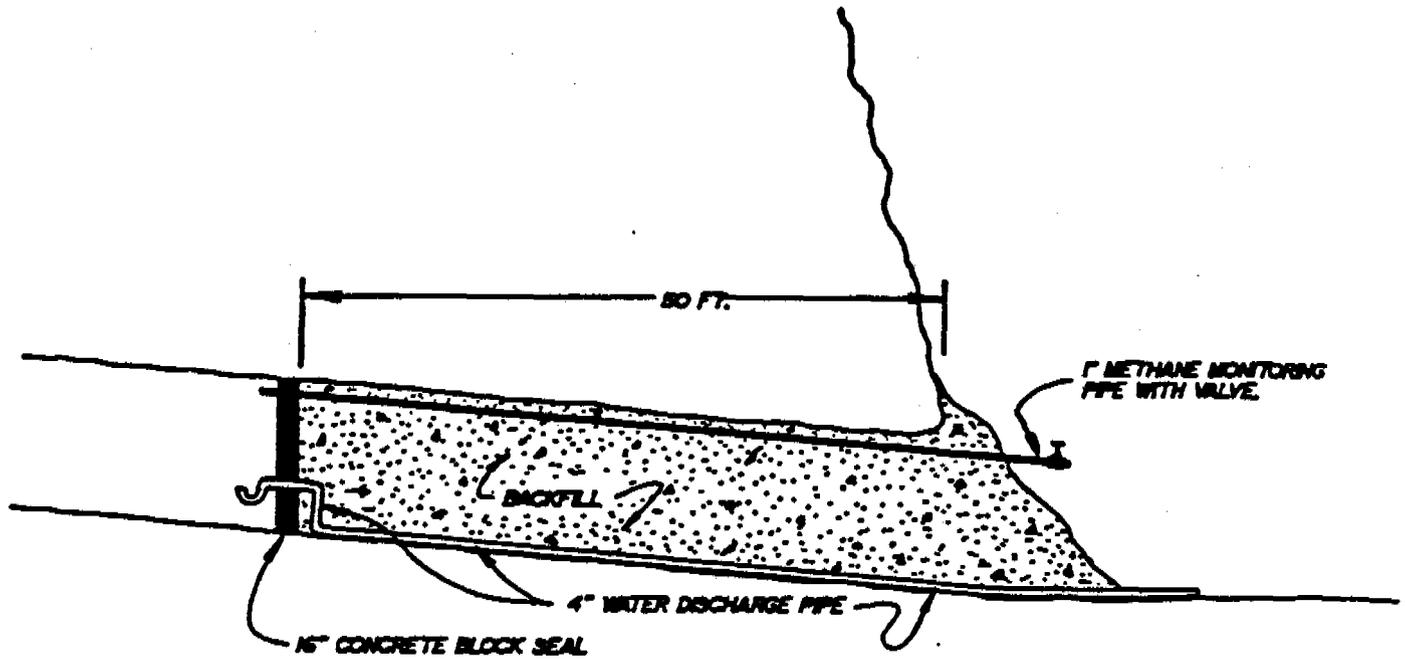
UTAH DIVISION OIL, GAS AND MINING

DRAWN BY: B.L.P.	DATE: 9/22/88
FIG. NO. FIG. 3.1-3	SCALE: NONE

**CASTLE GATE COAL COMPANY**  
HELPER UTAH

(Revised 9/91)

# PORTAL SEALING-UP DP METHOD



• NOTE: (3) UP DP PORTAL SEALS ON PERMIT AREA.

INCORPORATED  
EFFECTIVE:  
JUL 26 1995  
UTAH DIVISION OIL, GAS AND MINING

APP BY: B.L.P.	DATE: 9/22/88	<b>CASTLE GATE COAL COMPANY</b> HELPER, UTAH
DWG. NO. FIG. 3.1-4	SCALE: NONE	

TABLE 3.1-1

COAL SEAM RESERVES

Mine/Seam	Minable Tons <sup>(a)</sup>	Recoverable Tons <sup>(a)</sup>	Marketable Tons <sup>(a)</sup>	Total Extraction 1987-1996	Extraction per year <sup>(b)</sup>	Mine Life (Yrs)	Mining Method <sup>(c)</sup>
No. 3/Sub 3 Seam (Exhibit 3-9)	36,178,450	28,291,942	24,048,151	15,020,500	1,600,000	15	CM & LW
No. 5/D Seam (Exhibit 3-3)	8,000,000	6,400,000	5,400,000	0	1,600,000	4	CM & LW
No. 5/Cw Seam (Exhibit 3-4)	8,300,000	6,640,000	5,644,000	Unknown	1,600,000	4	CM & LW
No. 5/B Seam (Exhibit 3-5)	10,400,000	8,320,00	7,072,000	Unknown	1,600,000	4.5	CM & LW
No. 5/A Seam (Exhibit 3-6)	32,020,000	25,616,000	21,775,000	Begin Mining in year 2005	1,600,000	14	CM & LW
No. 5/Aw Seam Pod (Exhibit 3-6)	18,900,000	15,120,000	12,852,000	Unknown	1,600,000	8	CM & LW
No. 5/Bw Seam Pod (Exhibit 3-5)	20,000,000	16,000,000	13,600,000	Unknown	1,600,000	8.5	CM & LW

INCORPORATED  
 EFFECTIVE:  
 JUL 26 1995  
 UTAH DIVISION OF OIL, GAS AND MINING

007/004

3.1-29

**TABLE 3.1-1 (Continued)**  
**COAL SEAM RESERVES**

Mine/Seam	Minable Tons <sup>(a)</sup>	Recoverable Tons <sup>(a)</sup>	Marketable Tons <sup>(a)</sup>	Total Extraction 1987-1996	Extraction per year <sup>(b)</sup>	Mine Life (Yrs)	Mining Method <sup>(c)</sup>
No. 5/Sub 2 Seam (Exhibit 3-7)	12,700,000	10,165,000	8,640,000	Unknown	1,600,000	5.4	CM & LW
No. 5/Sub 1 Seam (Exhibit 3-8)	11,600,000	9,280,000	7,888,000	Begin Mining in year 1996	1,600,000	5	CM & LW
Sub 3 Seam	See Exhibit 3-9.						
<b>TOTAL MARKETABLE TONS IN MINE PLAN</b>			<b>97,892,000</b>	<b>ESTIMATED LIFE OF RESERVES AT 1,600,000 TPY<sup>(d)</sup></b>		<b>61</b>	<b>-</b>

(a) Total tons in remaining mine plan.  
 (b) Per year thereafter.  
 (c) Continuous Miners (CM) and Longwall (LW)  
 (d) Tons per year.

26 1995

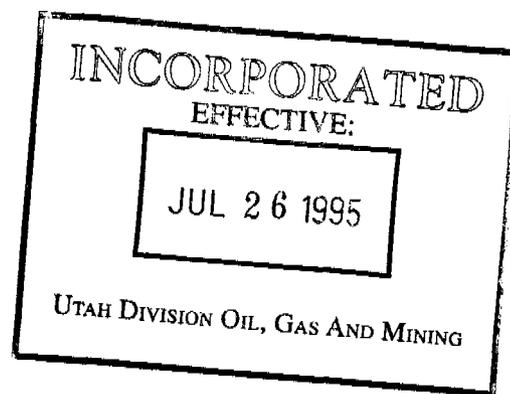
NOT REPRODUCED  
 WITHOUT PERMISSION  
 OF THE UTAH DIVISION OF  
 OIL, GAS AND MINING

UTAH DIVISION OF OIL, GAS AND MINING

**TABLE 3.1-2**  
**SUMMATION OF CASTLE GATE MINE BONDING/RECLAMATION COSTS**  
**(Revised October 1994)**

<b>SITE</b>	<b>ACRES</b>	<b>BONDING AMOUNT</b>
Sowbelly	21.0	\$ 173,615.40
Hardscrabble	39.0	548,902.17
Castle Gate & Adit 1	77.0	2,118,768.05
Crandall Canyon	28.0	734,821.25
Unit Train Loadout	<u>.6</u>	<u>122,676.00</u>
	165.6	<b>\$3,698,782.87</b>

Bond increased to \$4,415,505.00 in October of 1994, See Appendix 2-5.



**TABLE 3.1-3**  
**COST OF RECLAMATION AND BONDING ESTIMATE**  
 (Revised September 1991)

Site: **Sowbelly Gulch - No. 5 Mine**                      Acres: **16**

Date of Estimate: 9-91

Life of Facility: Thru 1985

**COSTS**

(1)	Demolition (Completed 1988) <sup>(a)</sup> .....	\$ 40,000.00
	(Culvert/road removal) .....	10,000.00
(2)	Portal Sealing (Completed 1988) .....	4,004.00
(3)	Grading <sup>(a)</sup> .....	89,092.00
(4)	Re-soiling .....	0.00
(5)	Revegetation <sup>(a)</sup> .....	44,224.00
(6)	Soil Amendments & Tests <sup>(a)</sup> .....	<u>7,680.00</u>
	<b>SUBTOTAL:</b>	<b>\$ 195,000.00</b>
	Less Demolition & Sealing	<u>44,004.00</u>
	<b>SUBTOTAL:</b>	<b>\$ 150,966.00</b>
(7)	Maintenance & Contingency (15%) .....	<u>22,649.40</u>
	<b>TOTAL COST &amp; BOND AMOUNT:</b>	<b>\$ 173,615.40</b>

<sup>(a)</sup> See attached detailed breakdown form.

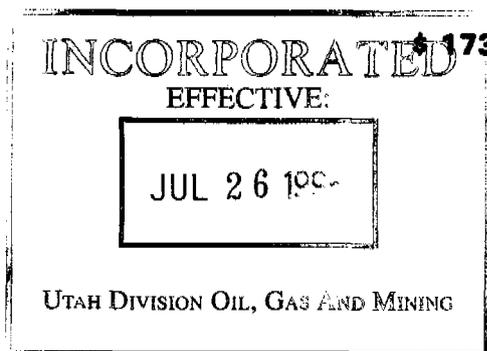


TABLE 3.1-3 (Continued)

Site: Sowbelly Gulch - No. 5 Mine

(1) Demolition/ Clean up

Cost estimation for removal of culverts and  
 narrowing/removing road: ..... \$ 10,000.00

(3) Grading Cost

\$5,568.30 /acre X 16 acres ..... 89,092.00

(5) Re-Vegetation - Seeding and Planting

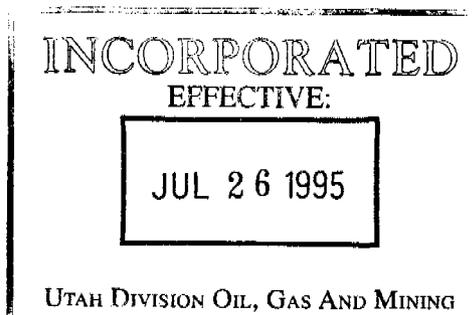
Acres to be Reclaimed: 16

Fertilizer (\$250.00 x Acres)	\$ 4,000.00
Seeding & Mulching (\$1,700.00 x Acres)	27,200.00
Tree & Shrub Planting (\$764.00 x Acres)	12,224.00
Evaluation of Success (\$50.00 x Acres)	<u>800.00</u>

Total Seeding & Planting Cost ..... \$ 44,224.00

(6) Soil Amendments & Test

\$1,200 /acre X 16 acres ..... \$ 7,680.00  
 2.5 acres



**TABLE 3.1-4**  
**COST OF RECLAMATION AND BONDING ESTIMATE**  
 (Revised September 1991)

Site: No. 3 & No. 4 Mines Hardscrabble Canyon      Acres: 24

Date of Estimate: 9-91

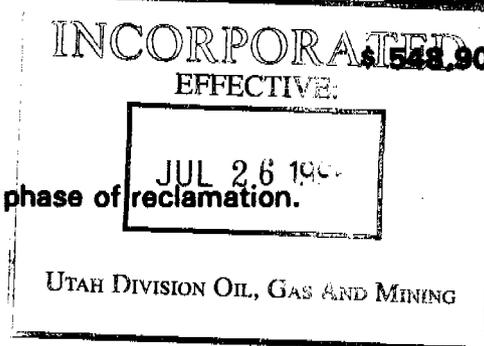
Life of Facility: 22 Years (from March 1983)

Note: Castle Gate will utilize this facility as the primary area for offices, shops and bath houses. This is different than the original M&RP submittal.

**COSTS**

(1) <sup>(a)</sup>	Demolition .....	\$ 201,303.00
(2) <sup>(a)</sup>	Portal Sealing .....	62,106.00
(3) <sup>(a)</sup>	Grading .....	133,639.00
(4)	Re-soiling .....	0.00
(5) <sup>(a)</sup>	Revegetation .....	66,336.00
(6) <sup>(a)</sup>	Soil Amendments & Tests .....	<u>11,520.00</u>
	<b>SUBTOTAL:</b>	<b>\$ 474,904.00</b>
(7)	Maintenance & Contingency (15%) .....	<u>71,235.60</u>
		<b>\$ 546,139.60</b>
	Additional bonding amount, see Chapter 3, Section 3.3-6	<u>2,762.57</u>
	<b>Total Cost &amp; Bond Amount</b>	<b>\$ 548,902.17</b>

<sup>(a)</sup> See attached detailed breakdown form for each phase of reclamation.



**TABLE 3.1-4 (Continued)**  
**(Revised September 1991)**

Site: **Hardscrabble Canyon**

**(1) Demolition and Disposal Costs for Building & Structures**

Type - Construction materials of building S = Steel \$0.67/ft<sup>3</sup> C = Concrete \$0.83/ft<sup>3</sup>

Structure/Building	Type	Volume Standing (ft <sup>3</sup> )	Cost (\$)
1. Water Tanks	S	9,333	6,253
2. Fan Structures	S	3,000	2,010
3. Substations	C	100	83
4. Scalping Structure	S	2,000	1,340
5. Loadout Structure	S	2,000	1,340
6. Truck Building	S	3,000	2,010
7. Motor Building	S	4,500	3,015
8. Small Change House	C	7,000	5,810
9. 2 Sheds, Storage	S	2,000	1,340
10. Quonset	S	6,400	4,288
11. Storage	S	4,000	2,680
12. Shop	S	4,000	2,680
13. Scale House	C	3,600	2,988
14. Warehouse	S	140,000	93,800
15. Lean-to	C	2,250	1,867
16. Large Change House	C	52,500	43,575
17. Misc. (Conc., Dist., Lines, etc.)	-	-	<u>26,224</u>
<b>TOTAL DEMOLITION AND DISPOSAL COST</b>			<b><u>\$201,303</u></b>

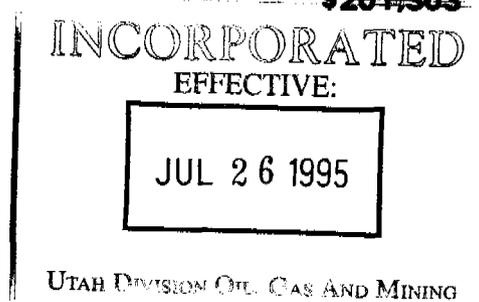


TABLE 3.1-4 (Continued)  
(Revised September 1991)

Site: Hardscrabble Canyon - No. 3 and No.4 Mines

(2) Portal Sealing

X UP/DOWN DIP (\$10,351/ea.) Number 6

Total Cost ..... \$ 62,106.00

(3) Grading Costs

\$5,568.30/Acre Acres to be Reclaimed 24

Total Cost ..... \$ 133,639.00

(4) Re-Soiling Costs (Deleted February 1989)

(5) Re-Vegetation - Seeding and Planting

Acres to be Reclaimed: 24

Fertilizer (\$250.00 x Acres) \$ 6,000.00

Seeding & Mulching (\$1,700.00 x Acres) 40,800.00

Tree & Shrub Planting (\$764.00 x Acres) 18,336.00

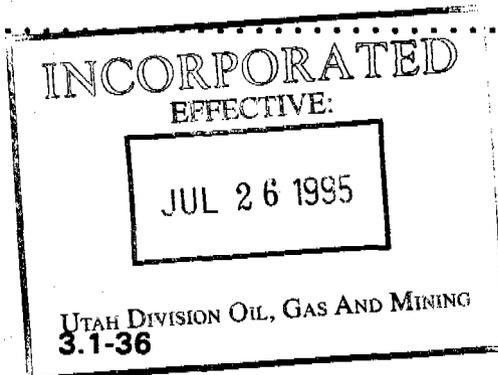
Evaluation of Success (\$50.00 x Acres) 1,200.00

Total Seeding & Planting Cost ..... \$ 66,336.00

(6) Soil Amendments and Tests

\$ 1,200 /Acres X 24 Acres  
2.5 Acres

\$ 11,520.00



**TABLE 3.1-5**  
**COST OF RECLAMATION AND BONDING ESTIMATE**  
 (Revised September 1991)

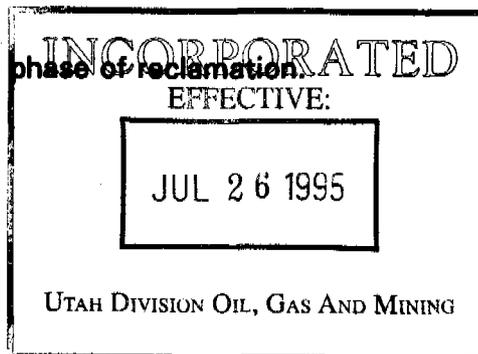
Site: **Castle Gate and Adit #1**                      Acres: **77 \*\***  
 Date of Estimate: **9-91**  
 Life of Facility: **30 to 80 Years**

**COSTS**

(1) <sup>(a)</sup> Demolition .....	\$ 864,685.00
(2) <sup>(a)</sup> Portal Sealing .....	31,053.00
(3) <sup>(a)</sup> Grading .....	412,054.00
(4) <sup>(a)</sup> Re-soiling .....	295,169.00
(5) <sup>(a)</sup> Revegetation .....	204,886.00
(6) <sup>(a)</sup> Soil Amendments & Tests .....	<u>34,560.00</u>
Subtotal:	\$1,842,407.00
(7) Maintenance & Contingency (15%)	<u>276,361.05</u>
<b>Total Cost &amp; Bond Amount</b>	<b>\$2,118,768.05</b>

<sup>(a)</sup> See attached detailed breakdown form for each phase of reclamation

\*\*     30 Acres - Refuse Site  
       44 Acres - Preparation Plant Area  
       2 Acres - Gravel Canyon  
       1 Acre - Adit #1  
       77 Acres - Total



**TABLE 3.1-5 (Continued)**  
**(Revised September 1991)**

Site: **Castle Gate and Adit #1**

**(1) Demolition and Disposal Costs for Building & Structures**

Type - Construction materials of building

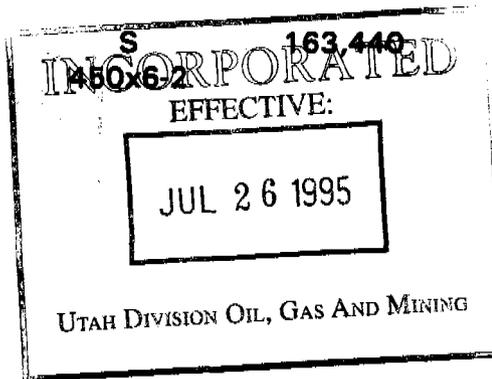
S = Steel \$0.67/ft<sup>3</sup>

C = Concrete \$0.83/ft<sup>3</sup>

Structure/Building	Type	Volume Standing (ft <sup>3</sup> )	Cost (\$)
1. Preparation Plant	S	782,080	523,993
2. Bath House	S	182,695	122,405
3. Div. 2 - U.F.	S	14,621	9,796
4. Div. 4 - Transfer House	S	7,776	5,209
5. Div. 5 - Truck Dump	S	5,814	3,895
6. Div. 8 - Breaker Bldg.	S	82,800	55,476
7. Div. 10 - Raw Coal	C	34,749	28,841
8. Div. 12A - Sample	S	21,924	14,689
9. Div. 13 - Clean Coal	C	82,800	68,724
10. 940' Belt - Tube	S	47,250	31,657
	940x42xpi		
11. Substation, Power Poles and Miscellaneous			
12. 4520 Belt - Gallery	S	163,440	109,504

**Total Demolition and Disposal Cost**

**\$ 864,685**



**TABLE 3.1-5 (Continued)**  
**(Revised September 1991)**

Site: **Castle Gate and Adit #1**

**(2) Portal Sealing**

X UP/DOWN DIP (\$10,351/ea.) Number 3  
 Total Cost ..... **\$ 31,053.00**

**(3) Grading Costs (minus 3 acres of the refuse pile already graded)**

\$5,568.30/Acre      Acres to be Reclaimed 74  
 Total Cost ..... **\$412,054.00**

**(4) Re-Soiling Costs**

Castle Gate, Adit #1, Refuse Pile in Schoolhouse Canyon

- I. Quantity of soil material needed 58,104 cy (72 Ac x 807)  
 (minus 2 acres in Gravel Canyon and 3 acres of the refuse pile already covered)

Where Obtained: Gravel Canyon 58,104 cy  
 Haul Distance: 1 mile  
 Cost Delivered \$ 2.92/cy (p.30) X 58,104 cy  
 Total Cost ..... **\$169,664.00**

- II. Spreading Soil \$2.16/cy (p.30) X 58,104 cy

Total Cost ..... **\$125,505.00**

**Grand Total (I and II) ..... \$295,169.00**

**Re-soiling Costs:** The re-soiling costs were calculated using a worst case scenario of covering all 72 acres with 6" of soil. The 30 acres of refuse must be covered with 6" of soil material. However, most of the area of the Prep Plant was disturbed prior to 1976. Areas disturbed prior to 1976 will have soil test done and proper soil amendments added to grow the appropriate vegetation according to the plan. Castle Gate Mine will cover with 6" of substitute soil those areas of the Prep Plant which added soil amendments will not ensure growth. The soil cover is available in Gravel Canyon.

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**TABLE 3.1-5 (Continued)**  
**(Revised September 1991)**

**Site: Castle Gate and Adit #1**

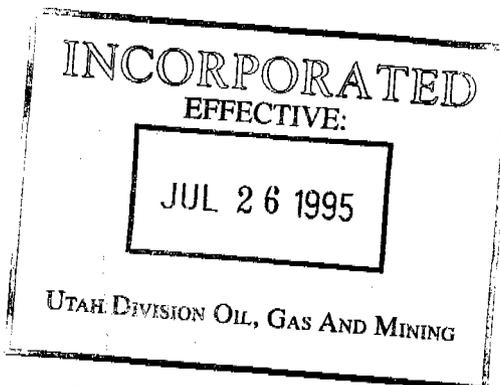
**(5) Re-Vegetation - Seeding and Planting**

**Acres to be Reclaimed: 74**

Fertilizer (\$250.00 x Acres)	\$ 18,850.00
Seeding & Mulching (\$1,700.00 x Acres)	125,800.00
Tree & Shrub Planting (\$764.00 x Acres)	56,536.00
Evaluation of Success (\$50.00 x Acres)	<u>3,700.00</u>
<b>Total Seeding &amp; Planting Cost .....</b>	<b>\$ 204,886.00</b>

**(6) Soil Amendments and Tests**

<u>\$ 1,200 /Acres X 72 Acres</u> 2.5 Acres	\$ 34,560.00
--	--------------



**TABLE 3.1-6**  
**COST OF RECLAMATION AND BONDING**  
**(Revised September 1991)**

**Site: Crandall Canyon**

**Acres: 28 (include 16 acres of access road that will remain permanent)**

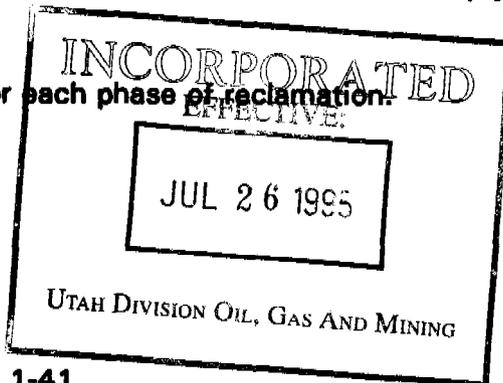
**Date of Estimate: 9-91**

**Life of Facility: 30 Years (conceived in 1982)**

**COSTS**

(1) <sup>(a)</sup>	Demolition .....	\$ 155,250.00
(2) <sup>(a)</sup>	Portal Sealing .....	316,000.00
(3) <sup>(a)</sup>	Grading .....	66,820.00
(4) <sup>(a)</sup>	Re-soiling .....	61,977.00
(5) <sup>(a)</sup>	Revegetation .....	33,168.00
(6) <sup>(a)</sup>	Soil Amendments & Tests .....	<u>5,760.00</u>
	Subtotal	\$ 638,975.00
(7)	Maintenance & Contingency (15%) .....	<u>95,846.25</u>
	<b>Total Cost and Bond Amount</b>	<b>\$ 734,821.25</b>

<sup>(a)</sup> See attached detailed breakdown form for each phase of reclamation.



**TABLE 3.1-6 (Continued)**  
**(Revised September 1991)**

**Site: Crandall Canyon**

**(1) Demolition/ Clean up**

The following price estimates were obtained from J.S. Redpath Corporation (See attached price estimate).

A. Hoist & Components	\$ 75,000.00
B. Head Frame dismantle	26,750.00
C. Hoist House, fan building, etc, dismantle	26,750.00
D. Concrete foundations & walls at main shaft & escape shaft, 60 - 70 yd.	<u>26,750.00</u>

**Total Cost** \$ **155,250.00**

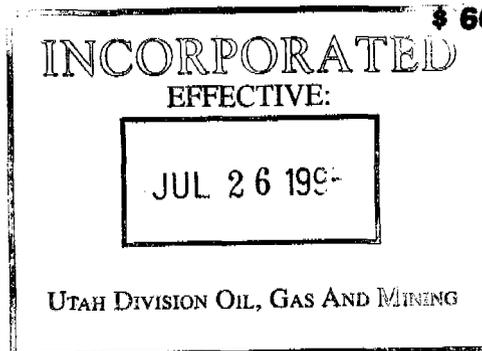
**(2) Portal Sealing**

The price estimate was obtained from J.S. Redpath.

Fill and seal shafts and  
install concrete cap \$ **316,000.00**

**(3) Grading Cost**

\$5,568.30 /acre X 12 acres \$ **66,820.00**



**TABLE 3.1-6 (Continued)**  
**(Revised September 1991)**

**(4) Re-Soiling Costs**

I. Quantity of soil material needed 9,684 cy (12 Ac x 807)

Where Obtained: Gravel Canyon 9,684 cy

Haul Distance: 4 miles

Cost Delivered \$ 4.24/cy (p.30) X 9,684 cy

Total Cost ..... \$ 41,060.00

II. Spreading Soil \$2.16/cy (p.30) X 9,684 cy

Total Cost ..... \$ 20,917.00

Grand Total (I and II) ..... \$ 61,977.00

**(5) Re-Vegetation - Seeding and Planting**

Acres to be Reclaimed: 12

Fertilizer (\$250.00 x Acres) \$ 3,000.00

Seeding & Mulching (\$1,700.00 x Acres) 20,400.00

Tree & Shrub Planting (\$764.00 x Acres) 9,168.00

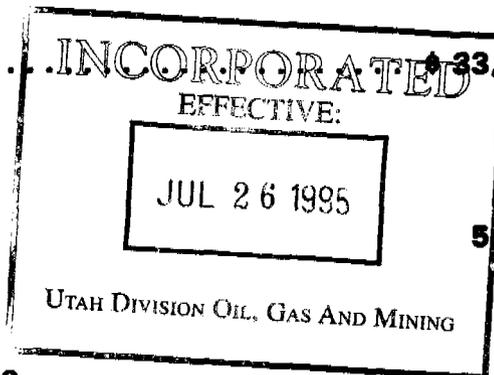
Evaluation of Success (\$50.00 x Acres) 600.00

Total Seeding & Planting Cost ..... \$ 33,168.00

**(6) Soil Amendments & Test**

\$1,200 /acre X 12 acres  
 2.5 acres

5,760.00





**APPENDIX 3-1**

**MINE PORTAL AND SHAFT SEALING**

**FACSIMILE TRANSMISSION**

REVISED SEP 1991

**TO:**Company: AMAX Coal IndustriesName: Joseph BonoFacsimile: 317-266-1528Date: 9/5/91File No. 0409**FROM:**Company: J. S. Redpath CorporationName: Pat HandFacsimile: 602-963-1072

No. of pages including cover: 2

Should any transmission or reception problems occur, please contact: 602-963-0210, Ext. 237

**MESSAGE: Dear Joe:**

In response to your requested estimate for the removal of buildings and equipment from the Crandall Canyon shaft area, I will address the items to be moved or dismantled at the Crandall shaft area as I remember them.

- |    |   |             |           |
|----|---|-------------|-----------|
| 1) | Hoist and components<br>Dismantle and store (local)<br>A) Includes the emergency access winch | \$75,000.00 |           |
| 2) | Head frame, dismantle   | 26,750.00   | (10 days) |
| 3) | Hoist house, dismantle<br>fan buildings, etc.   | 26,750.00   | (10 days) |
| 4) | Concrete foundations & walls at<br>main shaft and escape shaft<br>est. 60 to 75 yards         | 26,750.00   | (10 days) |
| 5) | Escalation of the \$185,000 quoted<br>on Oct 17, 1980 at 5% per annum                         | 316,000.00  |           |

Demolition estimates are order of magnitude numbers based on Means Building Construction data and Redpath estimating criteria.

We believe the value of the structures to be salvage, the headframe should possibly be stored with the hoist and sold as a unit.



A Member of the J.S. REDPATH GROUP OF COMPANIES

HEAD OFFICE - USA: 1347 North Alma School Road, Chandler, Arizona 85224 • Telephone: 602-963-0210

# PRICE RIVER COAL COMPANY

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

SUBMITTED SEP 1991

October 17, 1980

Mr. John Nadolski  
Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Re: Crandall Canyon Bonding

Dear Mr. Nadolski:

Our estimated numbers for reclamation of the Crandall Canyon site were derived as follows:

Fill and seal shafts - Nominal 20' dia. = 22' dia. excavation;

$$\frac{\text{Pi} \times 11^2 \times 1450}{27} = 20,415 \text{ cu. yds.}$$

Nominal 26' dia. = 28' dia. excavation;

$$\frac{\text{Pi} \times 14^2 \times 1450}{27} = 33,069 \text{ cu. yds.}$$

Cu. Yds. Excavated = 53,484  
Swell 50% = 26,742  
Cu. Yds. to Fill = 80,226

80,226 Cu. Yds. @ \$2 = \$160,456

Concrete Cap - 20 + 8 = 28' dia.;  $\text{Pi} \times 14^2 \times 1 = 616 \text{ Cu. Ft.}$

26 + 8 = 34' dia.;  $\text{Pi} \times 17^2 \times 1 = 908 \text{ Cu. Ft.}$   
1,524 Cu. Ft.

$\frac{1524}{27} \pm 34 \text{ yds. reinforced concrete @ } \$200 = \underline{\underline{\$6,800}}$

\$160,456  
6,800  
167,256  
10% Cont. 16,723  
\$183,975 Say: \$185,000

Mr. John Nadolski  
Office of Surface Mining  
October 17, 1980  
--Page 2

SUBMITTED SEP 1991

Buildings & Structures - Removal (Salvage Value) plus.....\$10,000  
Drill & Blast Foundations -  
- 2 Men @ \$150 x 20 days = \$ 6,000  
Powder = 1,000  
Caps = 1,000  
Bits = 700  
Miscellaneous = 300  
\$ 9,000  
Cont. 10% = 900  
\$ 9,900  
Say: \$10,000

Rip Black Top - Dozer 100 hours @ \$100.....\$10,000  
Scrape & load blacktop - Scraper - 20 days x 8 hrs.  
@ \$60 = \$ 9,600  
F.E. Loader - 100 hrs.  
@ \$54 = 5,400  
\$15,000 \$15,000

Haul Blacktop to Disposal Area -  

$$\frac{12.3 \text{ acres} \times 43,560 \times 0.5 \times 150\#}{2000} = 1,340 \text{ tons}$$
1340 tons x 22 miles x 0.65/ton mile = \$19,162 Say: \$20,000

Cover Blacktop with 4' Incombustible material -  

$$\frac{12.3 \text{ acres} \times 43,560}{10' \text{ Ht.}} = 53,579 \text{ sq. ft.}$$

$$\frac{53,579 \times 4}{27} = 7,938 \text{ cu. yds.}$$
7,938 x \$3.50 = 27,783 Say: \$30,000

Spread Topsoil & Grade -  

$$\frac{1.15 \text{ acres} \times 43,560 \times 0.5 \times \$8}{27} = \$9,680$$
 Say: \$10,000

Lime & Fertilize (est.) - \$10,000  
Seed, 30#/acre @ 0.8 germ. x 12.3 x \$10/lb. 5,000  
Sow seed, 2 Men x \$150 x 6 Days = 1,800  
Cont. = 180  
1,980 Say: 2,000

Mulch (est.) 2,000  
Track in w/dozer - 40 hrs. @ \$50/hr. 2,000  
126,000

Mr. John Nadolski  
Office of Surface Mining  
October 17, 1980  
-Page 3

SUBMITTED SEP 1991

Maint. & Patching (est.)	\$126,000
	<u>20,000</u>
	146,000
Cont.	<u>19,000</u>
	165,000
Shafts	<u>185,000</u>
TOTAL	\$350,000

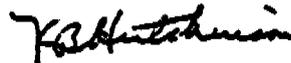
It must be obvious that we have estimated the amount of bond to cover the entire planned Crandall Canyon facility (12.3 acres to be disturbed), rather than the initial phase of work for which we have requested expedited clearance.

We do carry liability insurance in the amount of \$500,000 bodily injury, and \$500,000 property damage.

I trust the above information will answer your question. If you have any further questions, do not hesitate to call.

Very truly yours,

PRICE RIVER COAL COMPANY



K. B. Hutchinson  
Chief Engineer

KBH:ga

SUBMITTED JUL 1990

**PRICE RIVER COAL COMPANY**

P.O. BOX 629 HELPER, UTAH 84526 (801) 472-3411

October 15, 1980

Office of Surface Mining  
Brooks Towers  
1020-15th Street  
Denver, Colorado 80202

Attention: Mr. Don Crane/Mr. John Hardaway/Mr. John Nadolski

Re: Bonding Crandall Canyon Project

Gentlemen:

Following is our estimate of costs to reclaim the Crandall Canyon area upon cessation of activities:

Fill and seal shafts	\$185,000
Remove buildings and structures	10,000
Drill and blast foundations	10,000
Rip blacktop	10,000
Scrape and load blacktop	15,000
Haul blacktop to disposal area	20,000
Cover blacktop with 4' uncombustible material	30,000
Spread topsoil	10,000
Lime and fertilize	10,000
Seed	5,000
Sow seed	2,000
Mulch	2,000
Track in with dozer	2,000
	<u>311,000</u>
Maintenance and patching	20,000
Contingency	<u>19,000</u>
TOTAL	\$350,000

We now have a contract between Franklin Real Estate (owner of the property) and Utah DOGM for reclamation, not to exceed an estimated amount of \$498,410. We would be pleased to add the amount set for Crandall Canyon to the above number. We are assuming that the added amount would be the \$350,000 which we have estimated, or a round number of \$850,000 for the property as now envisioned.

# AMAX COAL COMPANY

A Subsidiary of AMAX Coal Industries, Inc.

RE

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MAY 15 1991



DIVISION OF  
OIL GAS & MINING

May 14, 1991

Dr. Dianne R. Nielson, Director  
Utah Department of Natural Resources  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Castle Gate Mine Complex, Permit #ACT-007-004  
Temporary Sealing of Mine Portals & Shafts

Dear Dr. Nielson:

AMAX Coal Company is requesting approval of an insignificant permit revision to Permit #ACT-007-004 for the Castle Gate Mine Complex in Carbon County, Utah. The purpose of the permit revision is to allow the temporary sealing of the Castle Gate Mine portals and shafts to secure the facilities and prevent unauthorized entry into the underground mine workings.

As you are aware, Castle Gate Mine has been under a temporary cessation of operations since June, 1989, due to extreme mining conditions and poor market conditions. Castle Gate Mine and AMAX Coal personnel have worked diligently over the last two years evaluating alternative mining methods and marketing strategies in the hope of recommencing mining at the Castle Gate Mine in the near future. Due to the continued soft coal market and projections for those conditions to continue into the near future, it is not foreseen that mining operations at Castle Gate Mine will recommence in the near future. However, it is anticipated that market conditions will eventually improve and the reactivation of Castle Gate Mine in the future is expected. Therefore, AMAX Coal Company management has decided to temporarily seal Castle Gate Mine.

The temporary sealing will prevent entry into the underground workings by unauthorized personnel, while allowing the prompt reopening of the mine in the future. AMAX Coal Company will maintain all existing surface facilities in Hardscrabble Canyon, Crandall Canyon and the Castle Gate Plant/Loadout area for future use to preserve the viability of the Castle Gate Mine Complex. AMAX Coal Company will continue all environmental monitoring and reporting required by the approved permit and regulations.

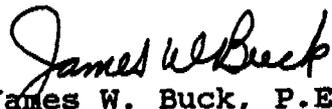
Dr. Dianne R. Nielson  
May 14, 1991  
Page 2

The details of the proposed temporary sealing plan are contained in the attached documents. The plan basically consists of sealing the drift/portal entries with crushed stone pneumatically stowed in the entries and sealing the Crandall Canyon shafts with a six-inch thick concrete cap. The mine openings proposed to be sealed, along with the type of seal to be used, are shown on the attached drawing. Also enclosed is a copy of a letter from MSHA approving the proposed sealing plan.

The expeditious review and approval of this temporary sealing plan would be greatly appreciated as sealing of the mine is projected to be completed in early June.

Should you or your staff have any questions regarding this matter, please feel free to contact me at (812) 421-3958.

Sincerely,

  
James W. Buck, P.E.  
Manager, Engineering Services

JWB:kjv

**Attachments**

xc: P. Ferguson - Castle Gate (w/ enclosure)  
S. Garcia - Evansville (w/o enclosure)  
D. Ham - Indianapolis (w/o enclosure)

**PROPOSED SEALING PLAN  
CASTLE GATE COAL COMPANY**

It is proposed to seal Mine #3 and associated openings of the Castle Gate Coal Co, Helper, Utah. The sealing will be accomplished in the following manner, consistent with sections 75.1711 (1), (2) CFR:

Drift openings and shallow shafts will be filled with a minimum of 25' of incombustible material (75.1711.2 CFR) per the sketch on Exhibit 1, Type I Seal.

The material used will be crusher run stone or eq. stowed pneumatically into the entries. Pneumatic stowing can place the material into the entries with a 95% rate of compaction. This should provide a non-settling seal and assure minimal air leakage.

The Crandall Canyon Shafts will be capped with 6" of concrete (75.1711.1 CFR) or eq. and have a minimum 2" dia. vent pipe extending at least 15' above the cap. The sketch on exhibit 1 shows the Type II Seal.

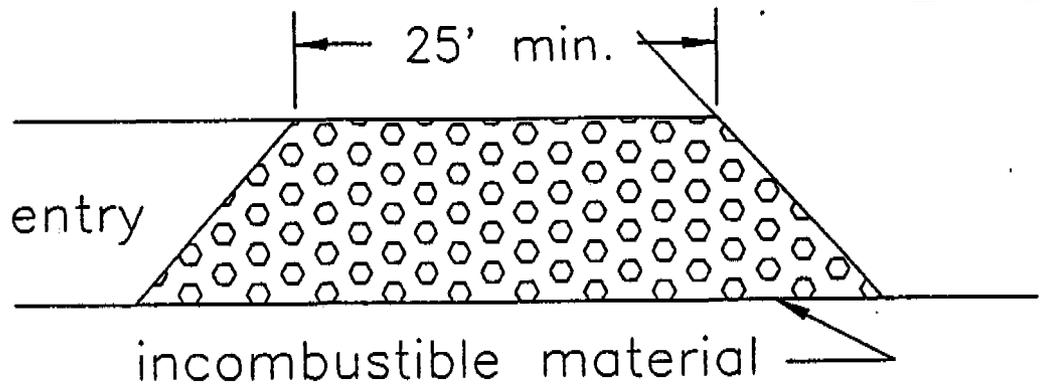
The openings and seal type are shown on the attached print(1"=500').

The sealing of this mine is considered temporary in nature as this mine may be reactivated in the future. The shafts were not backfilled for the following reasons:

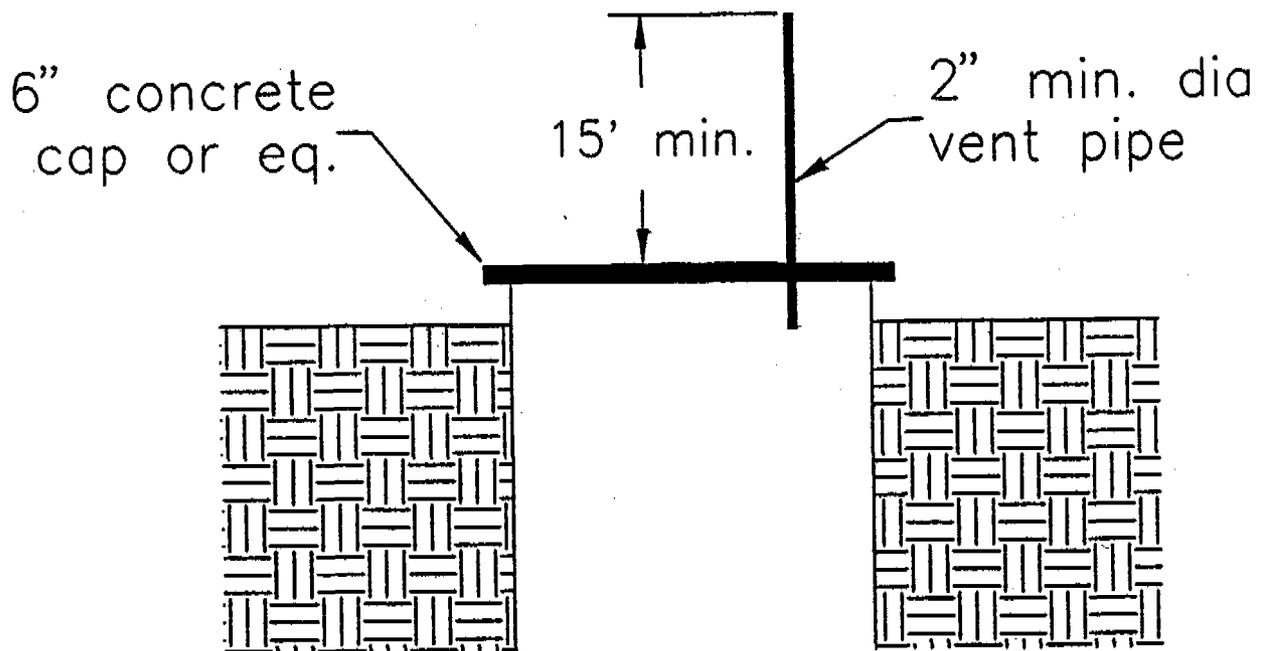
The shaft backfill is contained in the pad on which the Crandall Facilities are built. This material will not be available until final reclamation of the site.

If the mine is reopened minimal rehabilitation would be needed to reactivate the shafts for access and ventilation.

Mine sealing will be accomplished within 90 days of fan shut-down. Security will be provided until the mine is completely sealed to prevent unauthorized entrance.



## Type I Seal Drift Adits



## Type II Seal Crandall Shafts

U. S. Department of Labor

Coal Mine Safety and Health Administration  
P. O. Box 20087  
Washington, D. C. 20020-0087

Coal Mine Safety and Health  
District 9

MAR 19 1991

Peter A. Ferguson  
Castle Gate Coal Company  
P. O. Box 449  
Helper, UT 84526

RE: Castle Gate Mine  
ID No. 42-00165  
Mine Sealing Plan

Dear Mr. Ferguson:

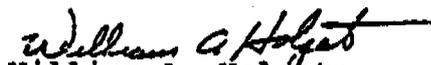
The enclosed sealing plan, received on March 11, 1991, consisting of a transmittal letter, a two page plan, and mine map, is approved in accordance with 30 CFR 75.316 with the following safety precautions as discussed between yourself and William Denning:

1. All mine openings shall be protected by a physical barrier to prevent entrance by unauthorized persons until the opening is sealed.
2. Tests for methane shall be conducted at mine openings according to 30 CFR 75.303, 75.304, 75.307, and 75.1106.
3. All applicable regulations in 30 CFR shall be followed during the sealing operation.
4. Following shut-down of the mine fan, all fan housings and structures located at mine openings shall be opened to prevent accumulation of methane.
5. A final mine map, certified by a registered engineer, must be submitted within 60 days after the seals are completed, as required by 30 CFR 75.1204

A copy of this approval should be made available to the miners and reviewed with all miners affected by this plan.

If there are any questions regarding this matter, please contact me at 303-231-5458.

Sincerely,

  
William A. Holgate  
District Manager

Enclosure