

## GENERAL INFORMATION

1. Permit Number	ACT/015/025
2. Mine Name	Bear Canyon Mine
3. Permittee Name	Co-Op Mining Company
4. Operator Name (if other than Permittee)	
5. Permit Expiration Date	November 2, 2000
6. Company Representative, Title	Charles Reynolds, P.E.
7. Phone Number	(435) 687-2450
8. Fax Number	(435) 687-5238
9. Mailing Address	Co-Op Mining Co. P.O. Box 1245 Huntington Utah 84528
10. Resident Agent, Title	Mr. Wendell Owen
Mailing Address	P.O. Box 1245 Huntington Utah 84528

## IDENTIFICATION OF OTHER PERMITS

Identify other permits which are required in conjunction with mining and reclamation activities.

Permit Type	ID Number	Description	Expires on
1. MSHA Mine ID(s)	42-01697	Bear Canyon #1 Mine	N/A
	42-02095	Bear Canyon #2 Mine	N/A
2. MSHA Impoundment(s)		None	
3. NPDES/UPDES Permit(s) (water)	UTGO4000 6	Minor Industrial	4/30/98
4. PSD (Air) Permit(s)	DAQE- 487-96	Issued 5/2/96	N/A
5.			
6.			

**CERTIFIED REPORTS**

List the certified inspection reports as required by the rules and under the approved plan which must be periodically submitted to the Division. Specify whether the information is included as APPENDIX A to this Annual Report or currently ON FILE with the Division:

Certified Reports:	Reports Required?		INCLUDED or ON FILE w/DOGM?			Comments
	YES	NO	YES	NO	ON FILE	
1. Excess Spoil Piles		X		X		
2. Refuse Piles		X		X		
3. Impoundments	X		X			Ponds A, B, C
4.						
5.						

**REPORTING OF OTHER TECHNICAL DATA**

List other technical data and information as required under the approved plan which must be periodically submitted to the Division. Specify whether the information is included as APPENDIX B to this Annual Report or currently ON FILE with the Division.

Technical Data:	Reports Required?		INCLUDED or ON FILE w/DOGM?			Comments
	YES	NO	YES	NO	ON FILE	
1. Climatological Data	X		X			
2. Subsidence Monitoring Data	X		X			Subsidence Report 11/10/97
3. Vegetation Monitoring Data		X				
4. Soils Monitoring Data		X				
5. Water Monitoring Data	X				X	
First Quarter Report	X				X	
Second Quarter Report	X				X	
Third Quarter Report	X				X	
Fourth Quarter Report	X				X	
6. Geological/Geophysical Data		X				
7. Engineering Data		X				
8. Other Data						
Sediment Material analysis		X	X			



# APPENDIX A

## Certified Reports

Excess Spoil Piles  
Refuse Piles  
Impoundments

as required under R645-301-514

### CONTENTS

Sediment pond "A" annual inspection report  
Sediment pond "B" annual inspection report  
Sediment pond "C" annual inspection report

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 3	
Permit Number	ACT\015\025	Report Date	12/30/97
Mine Name	Bear Canyon Mine		
Company Name	Co-Op Mining Company		
Impoundment Identification	Impoundment Name	Sediment Pond "A"	
	Impoundment Number	002A	
	UPDES Permit Number	UTG040006	
	MSHA ID Number	N/A	
IMPOUNDMENT INSPECTION			
Inspection Date	12/18/97		
Inspected By	Charles Reynolds		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual/Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>The pond's dam appeared sound with no signs of instability or hazardous conditions.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment storage capacity = 39,500 cubic feet  60% cleanout elevation = 7,086  100% sediment storage elevation = 7,087.9  Existing sediment elevation = 7,082.1</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle spillway elevation = 7,088  Emergency spillway elevation = 7,094.5</p>		

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond contains 4 inches of water. There is minimal sediment in the pond, all contained on the North end. The sediment pond was last cleaned in August, 1997.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The existing sediment volume is approximately 3,000 cubic feet. The existing storage capacity is 101,451 cubic feet which is greater than the 64,951 cubic feet required in the permit.

**Qualification Statement**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: \_\_\_\_\_

*Charles Reynolds*

Date: \_\_\_\_\_

*12/30/97*

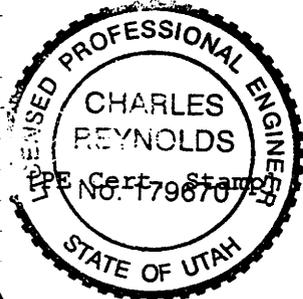
**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION (If NO, explain under Comments)**

	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

**COMMENTS AND OTHER INFORMATION**

**Certification Statement:**



I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.

By: Charles Reynolds, P.E.  
 (Full Name and Title)

Signature: Charles Reynolds Date: 12/30/97

P.E. Number & State: 179670 Utah

IMPOUNDMENT INSPECTION AND CERTIFIED REPORT		Page 1 of 3	
Permit Number	ACT\015\025	Report Date	12/30/97
Mine Name	Bear Canyon Mine		
Company Name	Co-Op Mining Company		
Impoundment Identification	Impoundment Name	Sediment Pond "B"	
	Impoundment Number	003A	
	UPDES Permit Number	UTG040006	
	MSHA ID Number	N/A	
IMPOUNDMENT INSPECTION			
Inspection Date	12/18/97		
Inspected By	Charles Reynolds		
Reason for Inspection (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual/Quarterly		
<p>1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.</p> <p>The pond's dam appeared sound with no signs of instability or hazardous conditions.</p>			
Required for an impoundment which functions as a SEDIMENTATION POND.	<p>2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.</p> <p>Sediment storage capacity = 3,670  60% cleanout elevation = 7,062.9  100% sediment storage elevation = 7,063.4  Existing sediment elevation = 7,063.0 (Average)</p>		
	<p>3. Principle and emergency spillway elevations.</p> <p>Principle spillway elevation = 7,064.9  Emergency spillway elevation = 7,068</p>		

4. **Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on outslopes of embankments, etc.

The pond contains 1.5 feet of water in the North end. The South end of the pond is filled with sediment. No discharge has occurred in 1997. No water samples were taken. No erosion problems were observed on the pond bank. The sediment pond was last cleaned out in June, 1996. An attempt was made to clean the pond on December 18, 1997, but the material was frozen. Although the pond still has capacity on the North end, the pond should be cleaned as soon as weather and temperature conditions permit.

5. **Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The existing sediment volume is approximately 2,610 cubic feet. The existing storage capacity is 10,155 cubic feet which is greater than the 9,095 cubic feet required in the permit.

**Qualification Statement**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: \_\_\_\_\_

*Charles Reynolds*

Date: \_\_\_\_\_

*12/30/97*

**CERTIFIED REPORT**

**IMPOUNDMENT EVALUATION (If NO, explain under Comments)**

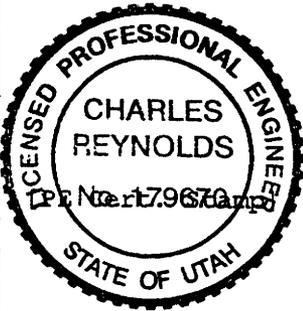
	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

**COMMENTS AND OTHER INFORMATION**

Pond should be cleaned as soon as weather conditions permit.

**Certification Statement:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: Charles Reynolds, P.E.  
 (Full Name and Title)

Signature: Charles Reynolds Date: 12/30/97

P.E. Number & State: 179670 Utah

<b>Permit Number</b>	ACT\015\025	<b>Report Date</b>	12/30/97
<b>Mine Name</b>	Bear Canyon Mine		
<b>Company Name</b>	Co-Op Mining Company		
<b>Impoundment Identification</b>	<b>Impoundment Name</b>	Sediment Pond "C"	
	<b>Impoundment Number</b>	006A	
	<b>UPDES Permit Number</b>	UTG040006	
	<b>MSHA ID Number</b>	N/A	

**IMPOUNDMENT INSPECTION**

<b>Inspection Date</b>	12/18/97
<b>Inspected By</b>	Charles Reynolds

<b>Reason for Inspection</b> (Annual, Quarterly or Other Periodic Inspection, Critical Installation, or Completion of Construction)	Annual/Quarterly
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1. Describe any appearance of any instability, structural weakness, or any other hazardous condition.

The pond has been constructed and maintained in accordance with the approved plan. The pond's dam appeared sound with no signs of instability or hazardous conditions.

Required for an impoundment which functions as a SEDIMENTATION POND.

2. Sediment storage capacity, including elevation of 60% and 100% sediment storage volumes, and, estimated average elevation of existing sediment.

Sediment storage capacity = 5,282  
 60% cleanout elevation = 7,030.3  
 100% sediment storage elevation = 7,031.4  
 Existing sediment elevation = 7,027.9

3. Principle and emergency spillway elevations.

Principle spillway elevation = 7,032.3  
 Emergency spillway elevation = 7,035.3

**4. Field Information.** Provide current water elevation, whether pond is discharging, type and number of samples taken, monitoring/instrumentation information, inlet/outlet conditions, or other related activities associated with the pond including but not limited to sediment cleanout, pond decanting, embankment erosion/repairs, monitoring information, vegetation on out slopes of embankments, etc.

The pond contains 3-4 inches of water. No discharge has occurred in 1997. No water samples were taken. No erosion problems were observed on the pond bank. The sediment pond was last cleaned out in June, 1996.

**5. Field Evaluation.** Describe any changes in the geometry of the impounding structure, average and maximum depths and elevations of impounded water, estimated sediment or slurry volume and remaining storage capacity, estimated volume of water impounded, and any other aspect of the impounding structure affecting its stability or function which has occurred during the reporting period.

The existing storage capacity was 4,795 cubic feet, which is greater than the 126 cubic feet required by the approved plan.

**Qualification Statement**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized under the direction of a Registered Professional Engineer to inspect the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability.

Signature: Charles Reynolds

Date: 12/30/97

**CERTIFIED REPORT**

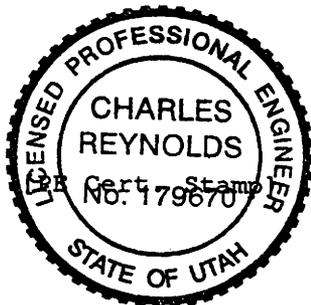
IMPOUNDMENT EVALUATION (If NO, explain under Comments)	YES	NO
1. Is impoundment designed and constructed in accordance with the approved plan?	X	
2. Is impoundment free of instability, structural weakness, or any other hazardous condition?	X	
3. Has the impoundment met all applicable performance standards and effluent limitations from the previous date of inspection?	X	

**COMMENTS AND OTHER INFORMATION**

*(This section is currently blank.)*

**Certification Statement:**

I hereby certify that; I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the condition and appearance of impoundments in accordance with the certified and approved designs for this structure; that the impoundment has been maintained in accordance with approved design and meet or exceed the minimum design requirements under all applicable federal, state and local regulations; and, that inspections and inspection reports are made by myself or under my direction and include any appearances of instability, structural weakness or other hazardous conditions of the structure affecting stability in accordance with the Utah R645 Coal Mining Rules.



By: Charles Reynolds, P.E.  
(Full Name and Title)

Signature: Charles Reynolds Date: 12/30/97

P.E. Number & State: 179670 - Utah

# APPENDIX B

## Reporting of Technical Data

including monitoring data, reports, maps, and other information  
as required under the approved plan  
or as required by the Division

in accordance with the requirements of R645-301-130 and R645-301-140.

### CONTENTS

Climatological Data  
Subsidence Monitoring Data and Map  
Vegetation Monitoring Data  
Sediment Pond "A" Cleanout Material Analyses

*CLIMATOLOGICAL DATA*

### Precipitation - Bear Canyon

<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>	<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>
01/01/97	0.00		03/26/97	0.00	
01/02/97	0.19	rain	.	.	no precipitation
01/03/97	0.00		.	.	during this
.	.		.	.	period
.	.	no precipitation	03/31/97	0.00	lt. rain/snow
.	.	during this	04/01/97	0.00	
.	.	period	04/02/97	0.10	2-3" snow
01/11/97	0.00		04/03/97	0.00	
01/12/97	0.86	18" snow	.	.	no precipitation
01/13/97	0.60	8" snow	.	.	during this
01/14/97	0.00		.	.	period
.	.	no precipitation	04/22/97	0.00	
.	.	during this	04/23/97	0.38	rain
.	.	period	04/24/97	0.00	lt. rain
01/20/97	0.00		04/25/97	0.00	
01/21/97	0.20	snow	04/26/97	0.00	
01/22/97	0.00		04/27/97	0.01	lt. rain
01/23/97	0.17	snow	04/28/97	0.00	
01/24/97	0.00		04/29/97	0.10	rain
01/25/97	0.26	snow	04/30/97	0.00	
01/26/97	0.00		05/01/97	0.29	rain
.	.	no precipitation	05/02/97	0.00	
.	.	during this	.	.	no precipitation
.	.	period	.	.	during this
01/31/97	0.00		.	.	period
02/01/97	0.00		05/19/97	0.00	
02/02/97	0.03	lt. snow	05/20/97	0.15	thunderstorm
02/03/97	0.00		05/21/97	0.15	thunderstorm
02/04/97	0.06	snow	05/22/97	0.00	
02/05/97	0.00		05/23/97	0.23	thunderstorm
.	.	no precipitation	05/24/97	0.20	thunderstorm
.	.	during this	05/25/97	0.08	rain/lt. snow
.	.	period	05/26/97	0.00	
02/21/97	0.00		.	.	no precipitation
02/22/97	0.04	1 1/2" snow	.	.	during this
02/23/97	0.00		.	.	period
02/24/97	0.00		05/31/97	0.00	
02/25/97	0.00		06/01/97	0.00	
02/26/97	0.00		.	.	no precipitation
02/27/97	0.00		.	.	during this
02/28/97	0.32	6" snow	.	.	period
03/01/97	0.00		06/06/97	0.00	
03/02/97	0.13	1" snow	06/07/97	0.05	rain
03/03/97	0.00		06/08/97	0.08	rain
03/04/96	0.01	light snow	06/09/97	0.05	rain
03/05/96	0.00		06/10/97	0.04	rain
.	.	no precipitation	06/11/97	0.04	rain
.	.	during this	06/12/97	0.00	
.	.	period	06/13/97	0.25	rain
03/23/97	0.00		06/14/97	0.00	
03/24/97	0.00	lt. snow flurries	06/15/97	0.00	
03/25/97	0.00				

### Precipitation - Bear Canyon

<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>	<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>
06/16/97	.	no precipitation	08/18/97	0.00	
.	.	during this	08/19/97	0.02	
.	.	period	08/20/97	0.29	thunderstorm
06/30/97	0.00		08/21/97	0.03	rain
07/01/97	0.00		08/22/97	0.02	rain
.	.	no precipitation	08/23/97	0.07	rain
.	.	during this	08/24/97	0.00	
.	.	period	.	.	no precipitation
07/07/97	0.00		.	.	during this
07/08/97	0.01	rain	08/29/97	0.00	period
07/09/97	0.00	trace of rain	08/30/97	0.00	lt. rain
07/10/97	0.01	rain	08/31/97	0.31	rain all day
07/11/97	0.00		09/01/97	0.16	thunderstorm
.	.	no precipitation	09/02/97	0.24	thunderstorm
.	.	during this	09/03/97	0.34	rain
.	.	period	09/04/97	0.00	
07/16/97	0.00		09/05/97	0.00	
07/17/97	0.00	trace of rain	09/06/97	0.14	thunderstorm
07/18/97	0.00		09/07/97	0.00	trace of rain
.	.	no precipitation	09/08/97	0.07	rain
.	.	during this	09/09/97	0.00	
.	.	period	09/10/97	0.13	rain
07/22/97	0.00		09/11/97	0.00	
07/23/97	0.10	rain	09/12/97	0.00	
07/24/97	0.00		09/13/97	0.13	thunderstorm
07/25/97	0.00		09/14/97	0.00	trace of rain
07/26/97	0.00		09/15/97	0.00	
07/27/97	0.00	trace of rain	09/16/97	0.00	
07/28/97	0.30	rain	09/17/97	0.00	
07/29/97	0.00		09/18/97	0.42	rain
07/30/97	0.00		09/19/97	0.30	rain
07/31/97	0.00	trace of rain	09/20/97	0.00	
08/01/97	0.00		.	.	no precipitation
08/02/97	0.00		.	.	during this
08/03/97	0.01	rain	.	.	period
08/04/97	0.08	rain	09/25/97	0.00	
08/05/97	0.02	rain	09/26/97	0.28	rain
08/06/97	0.07	rain	09/27/97	0.00	
08/07/97	0.00		09/28/97	0.00	
08/08/97	0.00		09/29/97	0.00	
08/09/97	0.00		09/30/97	0.00	
08/10/97	0.34	rain	10/01/97	0.00	
08/11/97	0.26	rain	.	.	no precipitation
08/12/97	0.12	thunderstorm	.	.	during this
08/13/97	0.06	rain	.	.	period
08/14/97	0.00		10/06/97	0.00	
08/15/97	0.00		10/07/97	0.66	rain
08/16/97	0.00		10/08/97	0.00	
08/17/97	0.01	rain	10/09/97	0.00	
08/18/97	0.00		10/10/97	0.00	

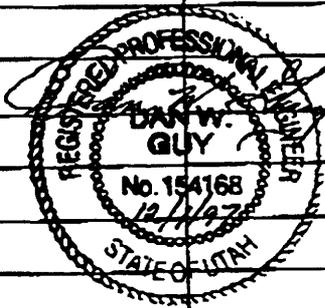
**Precipitation - Bear Canyon**

<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>	<u>Date</u>	<u>Gauge Reading</u>	<u>Precipitation</u>
10/11/97	0.02	rain/snow	11/20/97	0.02	snow
10/12/97	0.01	snow	11/21/97	0.00	
10/13/97	0.00		11/22/97	0.00	
.	.	no precipitation	11/23/97	0.00	
.	.	during this	11/24/97	0.00	
.	.	period	11/25/97	0.00	
10/23/97	0.00		11/26/97	0.13	snow
10/24/97	0.19	rain/snow	11/27/97	0.16	snow
10/25/97	0.00		11/28/97	0.08	snow
.	.	no precipitation	11/29/97	0.00	
.	.	during this	11/30/97	0.00	trace of snow
.	.	period	12/01/97	0.00	trace of snow
10/31/97	0.00		12/02/97	0.00	
11/01/97	0.00		10/03/97	0.00	trace of snow
.	.	no precipitation	12/04/97	0.00	
.	.	during this	12/05/97	0.00	
.	.	period	12/06/97	0.01	snow
11/06/97	0.00		12/07/97	0.03	snow
11/07/97	0.01	rain	12/08/97	0.04	snow
11/08/97	0.04	rain	12/09/97	0.00	
11/09/97	0.00		.	.	no precipitation
11/10/97	0.15	snow	.	.	during this
11/11/97	0.14	snow	.	.	period
11/12/97	0.00		12/23/97	0.00	
11/13/97	0.00		12/24/97	0.05	snow
11/14/97	0.00		12/25/97	0.00	
11/15/97	0.02	snow	.	.	no precipitation
11/16/97	0.03	snow	.	.	during this
11/17/97	0.00		.	.	period
11/18/97	0.00		12/31/97	0.00	
11/19/97	0.00				

Bear Canyon Total Precipitation: 11.2 inches

**CO-OP MINING COMPANY  
SUBSIDENCE MONITORING  
TRAIL AND BEAR CANYON MINES**

STATION	LOCATION	ELEVATION			Change	
		07/19/87	09/24/96	11/10/97	Last	Acc.
SMS-1	Trail/Bear Cyn.	9188.57	9187.91	9187.93	0.02	-0.64
SMS-2	Bear Canyon	8542.60	8542.09	8542.14	0.05	-0.46
SMS-3	Trail Canyon	8769.06	8768.24	8768.24	0.00	-0.82
SMS-4	Trail Canyon	8410.00	8409.74	8409.81	0.07	-0.19
CON-5	Bear Canyon	9379.91	-	9379.91	-	-
CON-6	Bear Canyon	9491.62	-	9491.62	-	-
SMS-7	Bear Canyon	9398.78	9398.05	9398.59	0.54	-0.19
SMS-8	McCadden	9062.15	9062.20	9062.18	-0.02	0.03
SMS-9	Bear Canyon	9348.91	9348.41	9348.61	0.20	-0.30
SMS-10	Bear Canyon	9331.62	9331.58	9331.50	-0.08	-0.12
SMS-11	Bear Canyon			9399.77	0.00	0.00
SMS-12	Bear Canyon			9388.60	0.00	0.00
SMS-13	Bear Canyon			9378.75	0.00	0.00
SMS-14	Bear Canyon			9311.99	0.00	0.00
SMS-15	Bear Canyon			* -	-	-
SMS-16	Bear Canyon			* -	-	-
SMS-17	Bear Canyon			9342.55	0.00	0.00
SMS-18	Bear Canyon			9328.79	0.00	0.00
SMS-19	Bear Canyon			9288.74	0.00	0.00
SMS-20	Bear Canyon			9251.11	0.00	0.00
SMS-21	Bear Canyon			9227.56	0.00	0.00
SMS-22	Bear Canyon			9215.06	0.00	0.00
SMS-23	Bear Canyon			9200.16	0.00	0.00
SMS-24	Bear Canyon			9162.18	0.00	0.00



**Notes:**

- (1) CON-6 and SMS-7 through SMS-10 established 9/22/91.
  - (2) The area was walked between all stations. No visible movement, cracks or other subsidence effects were noted during the survey, other than those shown on Plate 3-3.
  - (3) A subsidence hole was reclaimed in the drainage above Birch Springs in Huntington Canyon in 1995.
  - (4) SMS-11 through SMS-24 established 11/10/97
- \* Not surveyed due to snow.

# APPENDIX D

## Mine Maps

as required under R645-301-525.270.

### CONTENTS

3-4A	#1 Mine Blind Canyon Seam
3-4B	#1 Mine Seam Hiawatha
3-4C	#2 Mine Tank Seam
7-10A Through 7-10C	Mine Water Surveys